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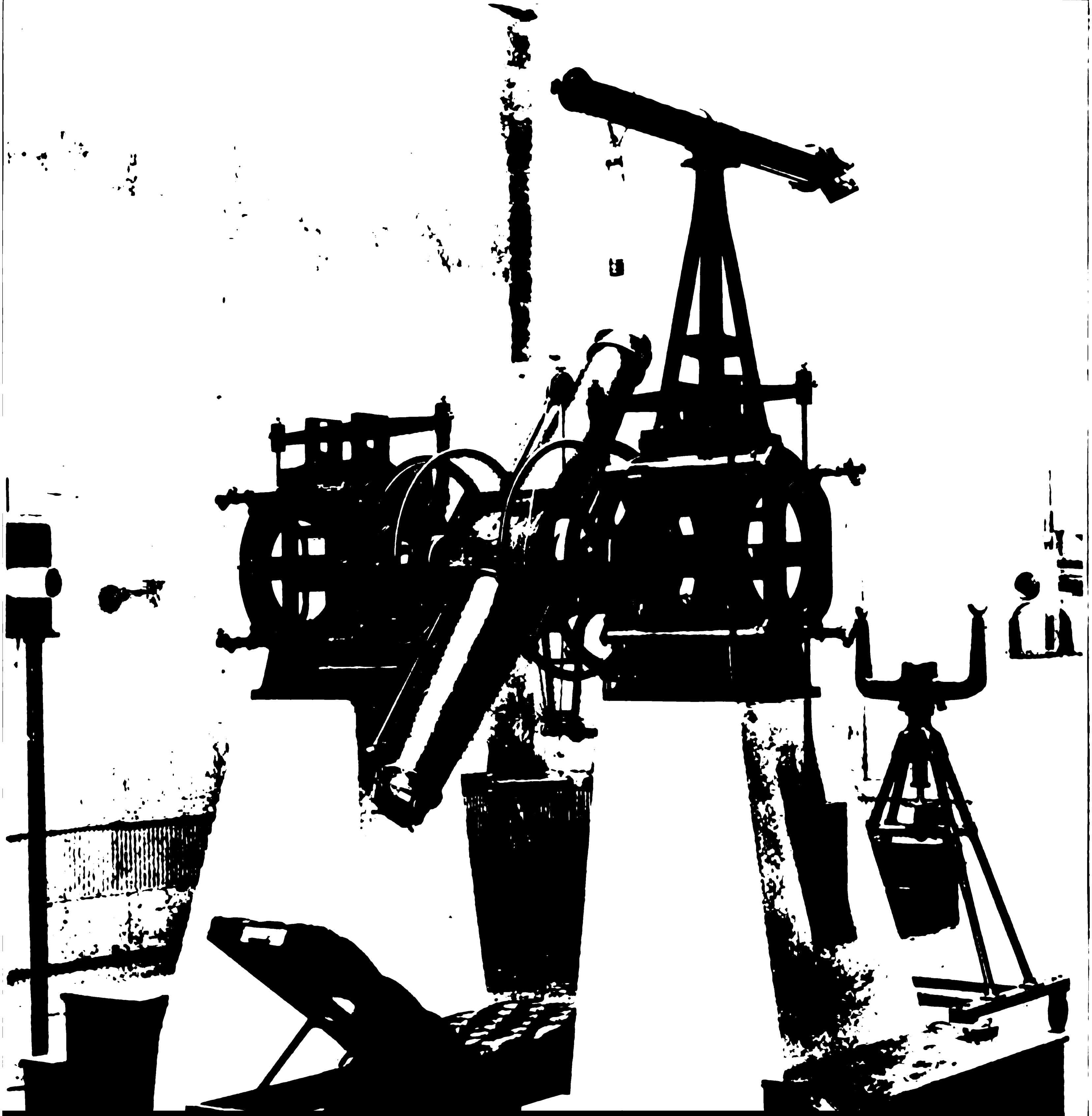

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43219

TABLE OF CONTENTS.

Page.
ERRATUM VI

PART I.—OBSERVATIONS WITH THE 26-INCH EQUATORIAL.

INTRODUCTION .... A III
OBSERVATIONS AND REDUCTIONS .... A I
RESULTS OF OBSERVATIONS .... A 67

PART II.—OBSERVATIONS WITH THE 9-INCH TRANSIT CIRCLE.

INTRODUCTION .... B III
  Reduction Tables .... B VII
OBSERVATIONS AND REDUCTIONS .... B I
RESULTS OF OBSERVATIONS .... B 51
  Individual Results .... B 53
  Mean Results .... B 67

PART III.—OBSERVATIONS WITH THE 9-INCH TRANSIT CIRCLE.

INTRODUCTION .... C III
  Reduction Tables .... C VII
OBSERVATIONS AND REDUCTIONS .... C I
RESULTS OF OBSERVATIONS .... C 27
  Individual Results .... C 29
  Mean Results .... C 44

PART IV.—OBSERVATIONS WITH THE 6-INCH TRANSIT CIRCLE.

INTRODUCTION .... D III
  Description of Instrument and Accessories .... D V
  The Constants of the Instrument .... D XVII
  Statement Concerning Variation of the Azimuth with Temperature .... D XXVIII
  Methods of Observing in Right Ascension and Declination .... D XXXV
  Methods of Reduction in Right Ascension and Declination .... D XXXVI
  Results of Observations for Personal Equation .... D XXXVII
  Results of Observations of Circumpolar Stars for Azimuth of the Meridian Mark and for Latitude ... D XLIV
  Results of Observations of Fundamental Stars for Preliminary Test of the Instrument, and for Determination of the Latitude .... D XLIX
  Observations of Stars for Position .... D LIV
  Reduction Tables .... D LIX
OBSERVATIONS AND REDUCTIONS .... D I
RESULTS OF OBSERVATIONS .... D 79
  Individual Results .... D 81
  Mean Results .... D 103

PART V.—OBSERVATIONS WITH THE PRIME VERTICAL TRANSIT INSTRUMENT.

INTRODUCTION .... E III
  Reduction Tables .... E V
OBSERVATIONS AND REDUCTIONS .... E I
RESULTS OF OBSERVATIONS .... E 123

ERRATUM.

VOLUME II.—SECOND SERIES.

Insert in connection with Introduction:

NOTE.—During the progress of the work, Prof. William Harkness, U. S. Navy, was Astronomical Director from September 21, 1894, to December 15, 1899, and Prof. S. J. Brown, U. S. Navy, from December 15, 1899, to March 6, 1901.

PREFACE.

It has been the duty of the Committee on Editing and Printing to select and arrange the material contained in Volume III.

The reduction of the observations, the preparation of the printer's copy, and the proof reading, with the exceptions noted in the Introduction to Part V, have been done in the Computing Division under the direction of Professor Eichelberger, who has consulted freely with the observers in charge of the various pieces of work. During the absence of the Sumatra eclipse expedition, February to July, 1901, Assistant Astronomer King was in charge of the Computing Division.

The first type proof has been read from the original records. All proofs beyond the first have been read only to assure the insertion of the corrections desired, except that in the plate proof the final results have been read entire.

PART I.

OBSERVATIONS OF EROS
WITH THE
TWENTY-SIX INCH EQUATORIAL.

1900-1901.

BY

T. J. J. SEE,

ASSISTED BY

GEORGE K. LAWTON.

INTRODUCTION.

By T. J. J. See.

The parallax observations of Eros made at Washington during the opposition of 1900–1901, were taken with the Clark Micrometer II attached to the 26-inch equatorial. As this work is of common interest to other observers, cooperating in the international campaign for the determination of the solar parallax from the observation of Eros, a brief description of the telescope and micrometer employed may appropriately accompany the observations herewith presented to the public.

The 26-inch Clark refractor of the United States Naval Observatory is already well known to astronomers, and accordingly it will be sufficient to describe the present condition of the instrument, and its constants, which have been investigated anew.

In remounting the great equatorial at the new Observatory in 1893, the old mounting, which had served for twenty years, was entirely discarded, and a new one of the most approved design supplied in its place. This new mounting was designed and built by Messrs. Warner & Swasey, of Cleveland, Ohio, and is considered one of their finest pieces of mechanical engineering. The dome and rising floor are similar to those of the Lick Observatory, and have performed throughout this work with entire satisfaction.

The pier is of cast iron, built in sections and bolted together. The whole column is very heavy, and rests on an extremely massive concrete foundation, 18 by 21 feet at the base, 16 feet in height, and sunk below the basement 12 feet into the earth, which at this point is composed of a hard conglomerate. The foundation and column are admirably adapted to securing the greatest possible stability, and it may be noted that there is no evidence of any settling of the pier since observations were resumed in 1894.

The machinery of the telescope is well designed, and, as the workmanship is of high class, the performance of the instrument in all respects is very satisfactory. It is, in fact, a new telescope, except the object glass which was completed in 1873. This has suffered no sensible deterioration by time and has always given excellent definition. The constants of the lens are sufficiently investigated in the Washington Observations for 1877, Appendix I. The optical performance of the lens in practice is best judged by the work done with it during the past twenty-eight years.

In considering the parallax work on Eros, the stability and permanence of the instrument and its chief constants are elements which should not be lost sight of, and accordingly they will be considered in the following pages.

THE DRIVING CLOCK.

The driving clock of this telescope is one of the finest ever devised and reflects the highest credit on the engineering skill of Messrs. WARNER & SWASEY. Throughout this delicate work the comparison star and Eros, when placed on the wires of the micrometer, remained apparently fixed until the latter moved off the wire by its orbital motion. The motive power is supplied by the descent, under gravity, of a 600-pound weight, and the speed is regulated by massive centrifugal governors of the form usually employed on large American telescopes of modern design. An electric control is also provided, but it has never been found necessary to use it. A steel shaft conveys the motion to the driving screw, which works in the circumference of a large wheel, with an endless worm, so that the telescope once started may run all night. The driving clock is wound automatically by an electric motor, at intervals of about two hours, without disturbing the motion of the telescope.

It is important to note that the periodic error of the driving screw is so small as never to attract the attention of the observer. Indeed, it required a careful investigation on a still night to detect the existence of this error. The resulting motion of the micrometer wire relative to the stars appears to have a total maximum amplitude of $2''.0$, $1''.0$ either side of the mean position, and the instrument completes its oscillations in about four minutes. For practical purposes, therefore, there is no error in the performance of the clock, as the oscillations of the image due to varying refractions usually exceed those due to the errors of the driving screw.

THE MICROMETER II.

In concluding his work on the screws of Micrometers I and II (Wash. Obs., 1877, App. I, p. 41), Prof. E. S. HOLDEN, U. S. Navy, called attention to "the excellence of these two screws in all respects, and to the credit this excellence reflects on their distinguished makers, Messrs. ALVAN CLARK & SONS." It may now be added that his claims for the screw of Micrometer I have been confirmed by the practical tests to which it was subjected by Professors HALL and BROWN during the last quarter of the nineteenth century.

As the screw of Micrometer I became at length somewhat worn by continued usage, it was thought best to replace it by Micrometer II, which had remained unused for want of a suitable illumination. Accordingly, in December, 1899, it was decided to order an electric illumination from Messrs. WARNER & SWASEY, so that the new micrometer might be permanently attached to the great equatorial. Micrometer II, used on this instrument since March 5, 1900, was made by Mr. GEORGE CLARK in 1874, and it is said that the famous mechanician considered it his finest piece of mechanical work.

The following study of the screw is to be regarded as an extension of the work published by Professor HOLDEN. The observations then made with this screw fixed the value of a revolution with considerable accuracy, and Professor HOLDEN'S tests of its inequalities, on the fine measuring engine devised for the use of the United States Transit of Venus Commission, disclosed no sensible periodic errors. After a somewhat elaborate investigation of the periodic errors obtained by setting the screw head at quarter revolutions, Professor **Holden** reached the conclusion that "*The periodic inequalities of screw II from* 45^r *to* 81^r *are far less than the accidental errors of the measures which will be made with it, and they need not be further considered.*" (Wash. Obs., 1877, App. I, p. 27. *Screw II* is there accidentally printed *screw I.*) A careful investigation of the inequalities of the integer revolutions led to the conclusion "*that the screw II between* 0^r *and* 80^r *is practically perfect, and requires no correction for inequalities of whole revolutions, nor for periodic error.*" (Wash. Obs., 1877, App. I, p. 33.)

Those who wish to examine the observations from which these deductions are made may find the tables for periodic errors on page 26, and for errors of integer revolutions on page 32 of this Appendix worthy of attention.

As a matter of record in connection with the Eros observations, the following improvement in the working of this micrometer screw should be noted. Between the two cylindrical drums of the micrometer head which automatically indicate whole revolutions and fractional parts thereof, the maker inserted a smaller cylindrical drum designed to keep the two large drums apart, but unfortunately making a frictional contact with one of them on a face nearly a quarter of an inch wide, and throughout the circumference. This face is of brass and as it worked against iron the motion was not so easy as was desirable. Oiling the bearing developed a gum, and as it acted on a considerable surface (nearly 1 square inch), the friction against the motion of the micrometer screw became inconveniently heavy. The micrometer head was therefore taken apart on November 19, 1900, without removing the micrometer from the telescope, and a narrow brass ring or washer of appropriate thickness inserted on the axis, so as to free the two drum surfaces from contact. As a result of this improvement in the gearing, the screw afterwards revolved with the utmost ease, and in other respects performed exactly as before. In putting the screw back in position, Mr. W. **Walter Dinwiddie** removed a small burr from the vertex of the conical bearing, which receives the screw cone. This burr apparently rendered the bearing slightly unsymmetrical. But as it existed at the time of Professor **Holden**'s tests on the measuring engine, and was then observed to produce no sensible periodic errors, and the micrometer has not since seen sufficient usage to wear the cone appreciably, there is fortunately no fear of any adverse effects from this cause.

The electric illuminating apparatus is similar to that which Messrs. **Warner & Swasey** designed for the 40-inch Yerkes telescope under the supervision of Professor **Barnard**; and as now arranged, a 2-candlepower lamp, sustained by seven **Edison-Lalande** cells, illuminates the wires directly, and also by reflection from a cylindrical mirror placed on the opposite side of the micrometer box. The wires appear sharp and symmetrical in a black field of uniform darkness. A hexagon of colored glasses rotating about the lamp enables the observer to modify the illumination to any desired tint or intensity, so that faint objects may be seen and measured in immediate contact with the wires. The heat from the lamp is quite small, and the whole illuminating apparatus is so insulated from the micrometer box that it can exert no adverse influence.

A preliminary determination of the value of a revolution of the screw (viz, $R=9''.928\pm0''.001$), made in May, 1900, indicated that Professor HOLDEN'S value, $R=9''.930$, is very nearly correct (c. f. A. N. 3654). This value was afterwards approximated again with a result, $R=9''.9286$, obtained early in 1901.

The following investigation has been made with a view of obtaining a definitive value of the revolution of the screw, including the effects of seasonal changes of temperature. For this purpose a series of twelve long arcs in the Pleiades, and of two long arcs in Perseus, were measured in August and September, 1901, and remeasured in January and February, 1902.

The average temperature at the summer season was 72°.5 F., while at the winter season it was 28°.6 F. The outcome of the investigation is very satisfactory, and as it may interest other observers with large refracting telescopes of similar construction, the results are summarized below. The columns as tabulated will readily be understood, except possibly that headed *Sum of Corrections*, which includes the *differential refraction*, *differential aberration*, *precession*, *proper motion*, and *instrumental errors*.

The method of observing was exactly similar during the two seasons. The power employed in all the work was 388, and the eyepiece was moved back and forth when necessary, to bring the two stars successively into the field of view. In this way steps sometimes as long as 450″ were taken upon the small stars scattered along the arcs.

The mean values for the summer work, R_1, and for the winter, R_2, are as follows:

$$R_1 = 9''.9304 \pm 0''.00036,$$
$$R_2 = 9''.9328 \pm 0''.00028.$$

In forming these means the different arcs are given weights proportional to the square roots of their respective lengths, multiplied by the number of independent measurements.

Although the focus was kept sharp by adjustment of the scale, it appears that $R_2 - R_1 = +0''.0024$. The change of temperature was 44° F. The complete formula resulting from these observations is, therefore,

$$R = 9''.9304 + (0''.000055)\,(72^\circ - T), \text{ or}$$
$$R = 9''.9328 - (0''.000055)\,(T - 28^\circ).$$

The mean focal length of the objective is 389.66 ± 0.05 inches (Wash. Obs. 1877, App. I, p. 11). Under the variations of temperature depending upon the seasons, this focal length has been found to change relative to that of the steel tube, lengthening in summer and shortening in winter, the amount of the alteration being 0.095 of an inch, with an uncertainty of 0.012 of an inch. This is 1:4101 of the total focal length, and from this cause the revolution of the micrometer screw would change by $0''.0024 \pm 0''.0003$. Accordingly, we reach the remarkable result that the change in the value of the screw deduced from the measurement of the fixed stars in summer and in winter respectively, is due wholly to change of focal length of the objective relative to the tube. It appears that the coefficient of expansion of the tube and of the screw are practically identical, so that the angle subtended at the object-glass by any two points on the axis of the screw is constant throughout the year, and no change in the value of a revolution occurs except for the change in the adjustment of the focus. It should be stated that the two ends of the tube are made of sheet steel, joined to a central section of gun metal 36.25 inches in length. As thus constituted, the tube as a whole and the screw have sensibly the same coefficients of expansion.

Only four different scale readings of the stellar focus were used during the Eros work, and a constant value of the micrometer equivalent was assumed for each. These readings, with corresponding equivalents, are as follows:

Scale Reading.	Micrometer Equivalent.
in.	″
2.47	9.9325
2.48	9.9322
2.49	9.9319
2.51	9.9313

In the extremes of summer and winter the readings are 2.455 and 2.550 inches, the setting being uncertain to the extent of about 0.010 inch.

Mr. C. W. **Frederick** has rendered valuable assistance in the reduction of the measures; and Mr. **Gustave Harrison** has aided on the instrument during the observations on the value of the screw.

The wires employed in the Eros Observations have been in use ever since March 5, 1900, and are rigorously parallel. Their diameters are respectively 0″.08 and 0″.12 as determined by measurement in daylight against a blue sky, the smaller being the fixed wire. The coincidence was so adjusted as to be about 100$^{\mathrm{r}}$.042 and as a rule it remained very constant throughout the work.

PLACES OF STARS USED IN THE DETERMINATION OF THE VALUE OF A REVOLUTION OF THE MICROMETER SCREW.

(A) *The Arc AZ Persei.*

Name and Magnitude.	α 1901.0	δ 1901.0	Δδ 1901.0	Authority.	Remarks.
	h m s	° ′ ″	″		
Z Persei, 8.6........	2 11 26.93	+56 33 4.9	1117.9	Krüger.	No. 2071 in Astron. Gesell. Cat., Hels. and Gotha, Leip., 1890.
A Persei, 8.2........	2 12 57.27	+56 51 42.8		Krüger.	No. 2113 in Astron. Gesell. Cat., Hels. and Gotha, Leip., 1890.

In his *Beobachtungen der Saturnstrabanten* (Publ. de l'Obs. Centr. Nicolas, Poulkova, 1898), Professor **Hermann Struve** has given the relative places of these stars as follows (l. c. p. 9):

Heliometer Measures of the Arc AZ Persei.

s 1891.0	p 1891.0	Δδ 1891.0		Authority.	Remarks.
″	° ′	″			
1342.53	33 41.14	1117.12	5 nights.	Schur (Göttingen).	Epoch of the measures 1891.8, reduced to 1891.0
1342.82	33 42.46	1117.07	5 nights.	Peter (Leipzig).	
1342.82	33 41.87	1117.20	8 nights.	Elkin (New Haven).	

From this material STRUVE deduces the mean:

AZ Persei, 1891.0, $s=1342''.72$; $p=33^\circ\ 41'.82$; $\Delta\delta=1117''.13$.

He shows by comparing with KRÜGER'S heliometer measures in 1860–1862 that there is no sensible proper motion in these stars. Under the circumstances we shall adhere to STRUVE'S mean, and this gives for

AZ Persei, 1901.0, $s=1342''.72$; $p=33^\circ\ 42'\ 9''.72$; $\Delta\delta=1117''.05$.

(B) *The Arc kl Persei.*

Name and Magnitude.	α 1901.0	δ 1901.0	Δδ 1901.0	Authority.	Remarks.
	h m s	° ′ ″	″		
k Persei, 8.3	2 14 53.901	+56 27 4.86	1216.47	Schur (Göttingen).	Proper motion of $-0^s.0037$ in α, $+0''.02$ in δ for *l* Persei.
l Persei, 6 6	2 14 55.37	+56 47 21.33			

(C) *Differences of Declination of Stars in the Pleiades.*

The following places are based on Dr. ELKIN'S triangulation with the Yale Heliometer, 1885.0. BESSEL'S triangulation with the Königsberg Heliometer, 1840.0, has been used for proper motions which are included in the adopted differences.

Name and Magnitude.	α 1901.0	δ 1901.0	Δδ Yale, 1901.0	$\Delta\delta_y-\Delta\delta_k$ μ in Δδ 1840–1885.	μ in Δδ 1885–1901.	Adopted Δδ 1901.0	Adopted Δδ 1902.0
	° ′ ″	° ′ ″	″	″	″	″	″
Celaeno 16 *g*, 6.5....	54 43 44.21	+23 58 41.96	+ 633.42	−0.31	−0.11	+ 633.31	+ 633.31
Electra 17 *b*, 4.7	54 44 54.99	+23 48 8.54					
18 *m*, 6.3	54 48 47.27	+24 31 43.63	+1338.90	0.17	−0.04	+1338.86	+1338.86
Taygeta 19 *e*, 5.0....	54 49 41.40	+24 9 24.73					
Bessel 3, 9.0	54 55 37.38	+23 46 25.21	+1958.80	−0.85	−0.30	+1958.50	+1958.48
Bessel 5, 9.1	54 56 29.69	+24 19 4.01					
Maia 20 *c*, 4.8	54 58 59.95	+24 3 30.93	+ 672.99	−0.06	−0.02	+ 672.97	+ 672.96
Asterope 21 *k*, 7.0	55 0 6.52	+24 14 43.92					
Bessel 9, 8.1	55 5 41.35	+23 52 53.68	+ 868.82	−0.30	−0.11	+ 868.71	+ 868.71
Merope 23 *d*, 4.5	55 6 42.93	+23 38 24.86					
Bessel 17, 7.9	55 21 18.70	+23 25 11.97	+1486.44	−1.14	−0.41	+1486.03	+1486.00
Bessel 18, 8.0	55 21 30.94	+23 49 58.41					
24 *p*, 8.0............	55 21 56.93	+23 48 36.39	+1700.43	−0.04	−0.01	+1700.42	+1700.42
Bessel 20, 8.0	55 22 25.56	+24 16 56.82					
Bessel 24, 7.0	55 23 56.98	+23 58 57.17	+ 659.72	−0.07	−0.02	+ 659.70	+ 659.70
Alcyone 25 *η*, 3.0	55 23 57.55	+23 47 57.45					
Bessel 21, 8.6	55 23 2.85	+24 21 4.79	+3770.49	+2.10	+0.75	+3771.24	+3771.30
Bessel 25, 8.2	55 26 7.70	+23 18 14.30					
Atlas 27 *f*, 4.0........	55 49 5.78	+23 45 3.37	+ 300.39	+0.26	+0.09	+ 300.48	+ 300.48
Pleione 28 *h*, 6.2	55 49 24.72	+23 50 3.76					
Bessel 30, 8.4	55 49 48.02	+23 35 3.89	+1834.04	+0.81	+0.29	+1834.33	+1834.34
Bessel 31, 8.0	55 50 39.25	+24 5 37.93					
Bessel 37, 7.9	56 0 36.69	+24 2 52.90	+1800.65	+0.53	+0.19	+1800.84	+1800.85
Bessel 38, 7.5	56 1 15.66	+23 32 52.25					

OBSERVATIONS FOR THE VALUE OF A REVOLUTION OF THE MICROMETER SCREW, AUGUST AND SEPTEMBER, 1901.

The Arc AZ Persei.

Washington Sidereal Time.	T.	Revolutions.	s 1901.0	Sum of Corrections.	Apparent s.	Micrometer Equivalent.	Residuals.	Remarks.
1901 h m	°		"	"	"	"	"	
Aug. 19, 0 29.0..	77.0	135.202	1342.72	—0.56	1342.16	9.9271	—0.0033	Seeing 4, excellent images.
Aug. 19, 0 55.0..	77.0	135.114	....	—0.56	1342.16	9.9335	+0.0031	Seeing 4, excellent images.
Aug. 20, 23 47.0..	79.0	135.230	....	—0.56	1342.16	9.9250	—0.0054	Seeing 4, very good.
Aug. 20, 0 13.0..	79.0	135.211	....	—0.56	1342.16	9.9264	—0.0040	Seeing 4, very good.
Aug. 21, 22 44.0..	79.5	135.182	....	—0.55	1342.17	9.9286	—0.0018	Seeing 5.
			Δδ 1901.0		Apparent Δδ			
Aug. 19, 1 40.0..	77.0	112.336	1117.05	—0.43	1116.62	[9.9400]	......	Seeing 4. Clock stopped and stars allowed to trail.
Aug. 20, 0 44.0..	76.0	112.426	....	—0.23	1116.82	9.9338	+0.0034	Seeing 4.
Aug. 21, 23 19.0..	79.0	112.382	....	+0.17	1117.22	[9.9413]	......	Seeing 5, excellent.
					Mean ..	9.9291		Wt.=12.

The Arc kl Persei.

Washington Sidereal Time.	T.	Revolutions.	s 1901.0	Sum of Corrections.	Apparent s.	Micrometer Equivalent.	Residuals.	Remarks.
Aug. 16, 0 56.0..	79.0	122.470	1216.47	—0.42	1216.05	9.9294	—0.0010	Seeing 4.
Aug. 19, 2 13.0..	77.0	122.475	....	—0.43	1216.04	9.9289	—0.0015	Seeing 4.
Aug. 20, 1 13.0..	76.0	122.476	....	—0.43	1216.04	9.9288	—0.0016	Seeing 4, excellent.
Aug. 21, 23 55.0..	78.0	122.453	....	—0.41	1216.06	9.9308	+0.0004	Seeing 4.
					Mean ..	9.9295		Wt.=8.

Arcs in the Pleiades.

1. CELAENO—ELECTRA.

Washington Sidereal Time.	T.	Revolutions.	s 1901.0	Sum of Corrections.	Apparent s.	Micrometer Equivalent.	Residuals.	Remarks.
Aug. 20, 2 38.0..	75.0	63.751	633.31	—0.27	633.04	9.9299	—0.0005	Seeing 4.
Aug. 21, 1 24.0..	77.0	63.779	......	—0.29	633.02	9.9252	—0.0052	Seeing 5.
Aug. 28, 3 4.5..	68.0	63.727	......	—0.26	633.05	9.9338	+0.0034	Seeing 3.
Aug. 29, 23 28.5..	70.5	63.766	......	—0.41	632.90	9.9254	—0.0050	Seeing 4.
					Mean ..	9.9286		Wt.=6.

2. 18*m*—TAYGETA.

Washington Sidereal Time.	T.	Revolutions.	s 1901.0	Sum of Corrections.	Apparent s.	Micrometer Equivalent.	Residuals.	Remarks.
Aug. 21, 1 45.0..	77.0	134.852	1338.86	—0.56	1338.30	9.9242	—0.0062	Seeing 5, excellent.
Aug 28, 2 30.0..	68.0	134.685	....	—0.54	1338.32	9.9367	+0.0063	Seeing 3.
Aug. 29, 23 40.0..	70.5	134.706	....	—0.71	1338.15	9.9339	+0.0035	Seeing 4.
Sept. 3, 23 41.0..	69.0	134.731	....	—0.71	1338.15	9.9320	+0.0016	Seeing 4.
					Mean ..	9.9317		Wt.=9.

3. BESSEL 3—BESSEL 5.

Washington Sidereal Time.	T.	Revolutions.	Δδ 1901.0	Sum of Corrections.	Apparent Δδ.	Micrometer Equivalent.	Residuals.	Remarks.
1901 h m	°		"	"	"	"	"	
Aug. 29, 1 22.0 ..	69.8	197.224	1958.50	−0.78	1957.72	9.9254	−0.0050	Seeing 4.
Sept. 3, 0 3.0 ..	68.5	197.254	....	−0.87	1957.63	9.9244	−0.0060	Seeing 3-4.
Sept. 4, 23 57.0 ..	71.0	197.191	....	−0.87	1957.63	9.9276	−0.0028	Seeing 4.
Sept. 6, 1 5.5 ..	72.0	197.219	....	−0.78	1957.72	9.9266	−0.0038	Seeing 4.
					Mean ..	9.9260		Wt. = 10.

4. MAIA.—ASTEROPE *k*.

Aug. 20, 2 9.0 ..	76.0	67.739	672.97	−0.24	672.73	9.9311	+0.0007	Seeing 4.
Aug. 21, 1 10.0 ..	77.0	67.744	......	−0.23	672.74	9.9306	+0.0002	Seeing 5.
Aug. 28, 2 44.0 ..	68.0	67.756	......	−0.25	672.72	9.9286	−0.0018	Seeing 3.
Aug. 29, 23 56.5 ..	70.3	67.762	......	−0.25	672.72	9.9276	−0.0028	Seeing 4.
					Mean ..	9.9295		Wt. = 6.

5. BESSEL 9—MEROPE.

Aug. 20, 2 25.0 ..	76.0	87.500	868.71	−0.36	868.35	9.9240	−0.0064	Seeing 4.
Aug. 21, 0 50.0 ..	77.0	87.446	......	−0.40	868.31	9.9297	−0.0007	Seeing 5; excellent images.
Aug. 28, 2 53.5 ..	68.0	87.452	......	−0.35	868.36	9.9296	−0.0008	Seeing 3.
Aug. 29, 0 4.5 ..	70.0	87.544	......	−0.46	868.25	[9.9179]	....	Rejected.
					Mean ..	9.9278		Wt. = 5.

6. BESSEL 17—BESSEL 18.

Aug. 28, 1 57.0 ..	68.0	149.578	1486.03	−0.61	1485.42	9.9307	+0.0003	Seeing 3.
Aug. 29, 0 57.0 ..	69.8	149.593	....	−0.63	1485.40	9.9296	−0.0008	Seeing 4.
Sept. 4, 0 22.0 ..	71.0	149.527	....	−0.67	1485.36	9.9337	+0.0033	Seeing 4.
Sept. 6, 1 46.5 ..	72.0	149.544	....	−0.60	1485.43	9.9331	+0.0027	Seeing 4.
					Mean ..	9.9318		Wt. = 9.

7. 24*p*—BESSEL 20.

Aug. 28, 1 13.0 ..	68.0	171.087	1700.42	−0.69	1699.73	9.9349	+0.0045	Seeing 3.
Aug. 29, 0 31.0 ..	69.8	171.111	....	−0.72	1699.70	9.9333	+0.0029	Seeing 4.
Sept. 3, 1 23.0 ..	67.5	171.208	....	−0.68	1699.74	9.9279	−0.0025	Seeing 3-4.
Sept. 6, 1 25.5 ..	72.0	171.188	....	−0.67	1699.75	9.9291	−0.0013	Seeing 4.
					Mean ..	9.9313		Wt. = 9.

8. BESSEL 24—ALCYONE.

Washington Sidereal Time.	T.	Revolutions.	Δδ 1901.0	Sum of Corrections.	Apparent Δδ.	Micrometer Equivalent.	Residuals.	Remarks.
1901 h m	°		"	"	"	"	"	
Aug. 20, 1 52.0 . .	76.0	66.400	659.70	−0.26	659.44	9.9313	+0.0009	Seeing 4.
Aug. 21, 0 28.0 . .	78.0	66.440	. . . . . .	−0.29	659.41	9.9249	−0.0055	Seeing 4.
Aug. 28, 0 52.0 . .	68.0	66.394	. . . . . .	−0.28	659.42	9.9319	+0.0015	Seeing 3.
Aug. 29, 0 14.5 . .	70.0	66.410	. . . . . .	−0.30	659.40	9.9292	−0.0012	Seeing 4.
					Mean . .	9.9293		Wt. = 6.

9. BESSEL 21—BESSEL 25.

Aug. 21, 2 18.0 . .	76.0	379.683	3771.24	−1.49	3769.75	9.9287	−0.0017	Seeing 5.
Aug. 29, 1 57.0 . .	69.8	379.521	. . . .	−1.52	3769.72	9.9328	+0.0024	Seeing 4.
Sept. 3, 0 39.0 . .	67.9	379.678	. . . .	−1.69	3769.55	9.9283	−0.0021	Seeing 3-4.
					Mean . .	9.9299		Wt. = 10.

10. ATLAS—PLEIONE.

Aug. 20, 1 42.0 . .	76.0	30.212	300.48	−0.11	300.37	9.9421	+0.0117	Seeing 4.
Aug. 21, 0 17.0 . .	78.0	30.249	. . . . . .	−0.12	300.36	9.9296	−0.0008	Seeing 5, excellent.
Aug. 22, 0 21.0 . .	78.0	30.223	. . . . . .	−0.12	300.36	9.9381	+0.0077	Seeing 3, afterwards clouded over solid.
Aug. 28, 23 22.5 . .	70.5	30.223	. . . . . .	−0.15	300.33	9.9371	+0.0067	Seeing 3.
					Mean . .	9.9367		Wt. = 4.

11. BESSEL 30—BESSEL 31.

Aug. 28, 23 52.0 . .	69.0	184.669	1834.33	−0.85	1833.48	9.9285	−0.0019	Seeing 3.
Aug. 29, 2 31.0 . .	69.0	184.526	. . . .	−0.70	1833.63	9.9370	+0.0066	Seeing 4.
Sept. 4, 0 45.0 . .	71.0	184.589	. . . .	−0.75	1833.58	9.9333	+0.0029	Seeing 4.
Sept. 6, 0 15.0 . .	74.0	184.617	. . . .	−0.78	1833.55	9.9316	+0.0012	Seeing 4.
					Mean . .	9.9326		Wt. = 10.

12. BESSEL 37—BESSEL 38.

Aug. 28, 0 30.0 . .	68.2	181.156	1800.84	−0.80	1800.04	9.9364	+0.0060	Seeing 3.
Aug. 29, 2 50.0 . .	69.0	181.242	. . . .	−0.70	1800.14	9.9322	+0.0018	Seeing 4.
Sept. 4, 1 6.0 . .	70.5	181.216	. . . .	−0.75	1800.09	9.9334	+0.0030	Seeing 4.
Sept. 6, 0 41.4 . .	72.0	181.256	. . . .	−0.77	1800.07	9.9311	+0.0007	Seeing 4.
					Mean . .	9.9333		Wt. = 10.

Weighted mean, $R_1 = 9''.9304 \pm 0''.00036$.

OBSERVATIONS FOR THE VALUE OF A REVOLUTION OF THE MICROMETER SCREW, JANUARY AND FEBRUARY, 1902.

The Arc AZ Persei.

Washington Sidereal Time.	T.	Revolutions.	*s* 1902.0	Sum of Corrections.	Apparent *s*.	Micrometer Equivalent.	Residuals.	Remarks.
1902 h m	°	•	″	″	″	″	″	
*Feb. 10, 4 49.5 ..	27.0	135.082	1342.72	—0.31	1342.41	9.9378	+0.0050	Seeing 2.
*Feb. 13, 4 1.0 ..	26.0	135.150	....	—0.30	1342.42	9.9328	0.0000	Seeing 2–3.
*Feb. 13, 4 27.0 ..	25.5	135.138	....	—0.30	1342.42	9.9338	+0.0010	Seeing 2–3.
					Mean ..	9.9348		Wt.=13.

The Arc kl Persei.

Washington Sidereal Time.	T.	Revolutions.	*Δδ* 1902.0	Sum of Corrections.	Apparent *Δδ*.	Micrometer Equivalent.	Residuals.	Remarks.
1902 h m	°		″	″	″	″	″	
Feb. 10, 3 44.0 ..	29.0	122.364	1216.49	—0.31	1216.18	9.9390	+0.0062	Seeing 2.
*Feb. 10, 4 13.0 ..	29.0	122.448	....	—0.30	1216.19	9.9323	—0.0005	Seeing 2.
† Feb. 13, 5 41.0 ..	25.0	122.435	....	—0.29	1216.20	9.9334	+0.0006	Seeing 2–3, windy.
					Mean ..	9.9349		Wt.=12.

Arcs in the Pleiades.

1. CELAENO–ELECTRA.

Jan. 11, 2 56.0	30.0	65.762	633.31	—0.16	633.15	9.9299	—0.0029	Seeing 2–3, unsteady.
Jan. 13, 2 34.0	28.0	63.806	......	—0.17	633.14	9.9228	—0.0100	Seeing 3.
Jan. 14, 2 2.0	34.0	63.780	......	—0.18	633.13	9.9268	—0.0060	Seeing 2.
Jan. 19, 2 27.0	36.0	63.791	......	—0.17	633.14	9.9253	—0.0075	Seeing 3.
Jan. 20, 2 10.0	32.0	63.803	......	—0.17	633.14	9.9233	—0.0095	Seeing 3.
Jan. 28, 3 32.0	27.0	63.709	......	—0.15	633.16	9.9383	+0.0055	Seeing 2.
					Mean ..	9.9277		Wt.=9.

2. 18*m*—TAYGETA.

Jan. 13, 3 3.0 ...	27.5	134.784	1338.86	—0.32	1338.54	9.9310	—0.0018	Seeing 3.
Jan. 14, 3 10.0 ...	32.0	134.901	....	—0.32	1338.54	9.9224	—0.0104	Seeing 2, blurred.
Jan. 19, 4 59.0 ...	32.5	134.732	....	—0.29	1338.57	9.9351	+0.0023	Seeing 3.
Jan. 20, 3 5.0 ...	32.0	134.706	....	—0.31	1338.55	9.9368	+0.0040	Seeing 3.
Feb. 3, 3 13.0 ...	23.0	134.836	....	—0.30	1338.56	9.9273	—0.0055	Seeing 2–3, blurred.
Feb. 3, 3 33.0 ...	22.5	134.768	....	—0.30	1338.56	9.9324	—0.0004	Seeing 2–3, blurred.
					Mean ..	9.9308		Wt.=13.

3. BESSEL 3—BESSEL 5.

Jan. 19, 3 29.0 ...	35.0	197.220	1958.48	—0.44	1958.04	9.9282	—0.0046	Seeing 3.
Feb. 9, 4 34.0 ...	26.0	197.108	....	—0.45	1958.03	9.9338	+0.0010	Seeing 3.
Feb. 9, 4 52.0 ...	25.0	197.088	....	—0.46	1958.02	9.9348	+0.0020	Seeing 3.
*Feb. 9, 5 26.0 ...	25.0	197.141	....	—0.47	1958.01	9.9320	—0.0008	Seeing 3.
					Mean ..	9.9322		Wt.=12.

*Two measures. † Three measures.

4. MAIA—ASTEROPE *k*.

Washington Sidereal Time.	T.	Revolutions.	$\Delta\delta$ 1902.0	Sum of Corrections.	Apparent $\Delta\delta$.	Micrometer Equivalent.	Residuals.	Remarks.
1902 h m	°		″	″	″	″	″	
Jan. 11, 3 13.0...	30.0	67.740	672.96	−0.14	672.82	9.9323	−0.0005	Seeing 2–3
Jan. 13, 1 46.0...	29.0	67.754	......	−0.14	672.82	9.9303	−0.0025	Seeing 3.
Jan. 14, 2 13.0...	33.0	67.795	......	−0.14	672.82	9.9244	−0.0084	Seeing 2.
Jan. 19, 2 40.0...	36.0	67.752	......	−0.14	672.82	9.9306	−0.0022	Seeing 3.
Jan. 20, 2 24.0...	32.0	67.724	......	−0.14	672.82	9.9348	+0.0020	Seeing 3.
Jan. 28, 3 42.0...	27.0	67.740	......	−0.15	672.81	9.9324	−0.0004	Seeing 2.
					Mean ..	9.9308		Wt. = 9.

5. BESSEL 9—MEROPE.

Jan. 13, 2 16.0..	28.0	87.458	868.71	−0.23	868.48	9.9302	−0.0026	Seeing 3.
Jan. 14, 2 29.0..	33.0	87.446	......	−0.22	868.49	9.9317	−0.0011	Seeing 2.
Jan. 19, 3 1.0..	36.0	87.436	......	−0.21	868.50	9.9329	+0.0001	Seeing 3.
Jan. 20, 2 47.0..	32.0	87.460	......	−0.22	868.49	9.9302	−0.0026	Seeing 3.
Jan. 28, 4 17.0..	26.5	87.423	......	−0.18	868.53	9.9348	+0.0020	Seeing 2.
Feb. 3, 2 54.0..	24.0	87.502	......	−0.21	868.50	9.9255	−0.0073	Seeing 2–3, blurred.
					Mean ..	9.9309		Wt. = 10.

6. BESSEL 17—BESSEL 18.

Jan. 13, 5 23.0.	25.0	149.560	1486.00	−0.38	1485.62	9.9333	+0.0005	Seeing 3.
Jan. 14, 4 52.0..	32.0	149.608	....	−0.36	1485.64	9.9302	−0.0026	Seeing 2.
Jan. 19, 5 22.0..	32.0	149.604	....	−0.36	1485.64	9.9304	−0.0024	Seeing 3.
Jan. 20, 3 35.0..	31.5	149.602	....	−0.34	1485.66	9.9370	+0.0042	Seeing 3.
Jan. 28, 2 44.0..	27.5	149.624	....	−0.34	1485.66	9.9294	−0.0034	Seeing 2.
					Mean ..	9.9321		Wt. = 11.

7. 24*p*—BESSEL 20.

Jan. 14, 5 19.0..	32.0	171.180	1700.42	0.42	1700.00	9.9310	−0.0018	Seeing 2.
Jan. 19, 5 47.0..	31.0	171.168	....	−0.43	1699.99	9.9317	−0.0011	Seeing 3.
Jan. 28, 3 10.0..	27.0	171.128	....	−0.39	1700.03	9.9343	+0.0015	Seeing 2.
Feb. 3, 5 35.0..	19.0	171.200	....	0.42	1700.00	9.9299	−0.0029	Seeing 2–3, blurred.
Feb. 3, 5 58.0..	19.0	171.170	....	0.43	1699.99	9.9316	−0.0012	Seeing 2–3, blurred.
					Mean ..	9.9317		Wt. = 12.

8. BESSEL 24—ALCYONE.

Jan. 11, 2 24.0..	31.5	66.424	659.70	−0.16	659.54	9.9293	−0.0035	Seeing 2–3.
Jan. 13, 1 30.0..	30.5	66.460	......	0.16	659.54	9.9239	−0.0089	Seeing 3.
Jan. 14, 1 40.0..	34.0	66.438	.....	−0.16	659.54	9.9271	−0.0057	Seeing 2.
Jan. 19, 2 12.0..	37.0	66.412	.....	−0.16	659.54	9.9312	−0.0016	Seeing 3.
Jan. 20, 2 0.0..	33.0	66.410	......	−0.16	659.54	9.9314	−0.0014	Seeing 3.
Jan. 28, 2 26.0..	29.0	66.422	......	−0.16	659.54	9.9296	−0.0032	Seeing 2.
					Mean ..	9.9288		Wt. = 9.

9. BESSEL 21—BESSEL 25.

Washington Sidereal Time.	T.	Revolutions.	$\Delta\delta$ 1902.0	Sum of Corrections.	Apparent $\Delta\delta$.	Micrometer Equivalent.	Residuals.	Remarks.
1902 h m	°		"	"	"	"	"	
Feb. 4, 3 22.0..	23.0	379.718	3771.30	−0.44	3770.83	9.9306	−0.0022	Seeing 3.
Feb. 4, 4 38.0..	21.0	379.728	....	−0.77	3770.53	9.9296	−0.0032	Seeing 3.
Feb. 6, 4 58.0..	28.0	379.502	....	−0.75	3770.55	9.9355	+0.0027	Seeing 3.
Feb. 6, 5 40.0..	28.0	379.576	....	−0.77	3770.53	9.9335	+0.0007	Seeing 3.
Feb. 7, 3 32.0..	34.0	379.576	....	−0.82	3770.48	9.9334	+0.0006	Seeing 2–3.
Feb. 7, 4 47.0..	31.5	379.450	....	−0.73	3770.57	9.9369	+0.0041	Seeing 2–3, blurred.
					Mean ..	9.9332		Wt. = 21.

10. ATLAS—PLEIONE.

Washington Sidereal Time.	T.	Revolutions.	$\Delta\delta$ 1902.0	Sum of Corrections.	Apparent $\Delta\delta$.	Micrometer Equivalent.	Residuals.	Remarks.
Jan. 11, 2 12.0..	31.5	30.230	300.48	−0.06	300.42	9.9378	+0.0050	Seeing 2–3.
Jan. 13, 1 20.0..	30.5	30.222	......	−0.07	300.41	9.9400	+0.0072	Seeing 3.
Jan. 13, 3 18.0..	27.5	30.235	......	−0.07	300.41	9.9359	+0.0031	Seeing 3.
Jan. 14, 1 28.0..	34.0	30.243	......	−0.07	300.41	9.9333	+0.0005	Seeing 2.
Jan. 14, 3 26.0..	32.0	30.233	......	−0.07	390.41	9.9366	+0.0038	Seeing 2.
Jan. 19, 2 2.0..	37.0	30.242	......	−0.06	300.42	9.9339	+0.0011	Seeing 3.
Jan. 20, 1 52.0..	33.0	30.228	......	−0.06	300.42	9.9382	+0.0054	Seeing 3.
Jan. 28, 2 18.0..	29.0	30.239	......	−0.06	300.42	9.9347	+0.0019	Seeing 2.
					Mean ..	9.9363		Wt. = 8.

11. BESSEL 30—BESSEL 31.

Washington Sidereal Time.	T.	Revolutions.	$\Delta\delta$ 1902.0	Sum of Corrections.	Apparent $\Delta\delta$.	Micrometer Equivalent.	Residuals.	Remarks.
Feb. 6, 6 38.0...	28.0	184.606	1834.34	−0.49	1833.85	9.9338	+0.0010	Seeing 3.
Feb. 6, 6 58.0...	28.0	184.704	....	−0.52	1833.82	9.9284	−0.0044	Seeing 3.
*Feb. 7, 5 35.0...	31.0	184.581	....	−0.43	1833.91	9.9355	+0.0027	Seeing 2–3, blurred.
*Feb. 8, 3 35.0...	23.0	184.587	....	−0.39	1833.95	9.9354	+0.0026	Seeing 2, windy.
					Mean ..	9.9333		Wt. = 15.

12. BESSEL 37—BESSEL 38.

Washington Sidereal Time.	T.	Revolutions.	$\Delta\delta$ 1902.0	Sum of Corrections.	Apparent $\Delta\delta$.	Micrometer Equivalent.	Residuals.	Remarks.
Feb. 7, 5 58.0...	30.0	181.160	1800.85	−0.40	1800.45	9.9384	+0.0056	Seeing 2–3, blurred.
*Feb. 8, 4 45.0...	23.0	181.104	....	−0.38	1800.47	9.9376	+0.0048	Seeing 2, windy.
*Feb. 9, 3 42.0...	28.0	181.163	....	−0.39	1800.46	9.9383	+0.0055	Seeing 3.
Feb. 9, 4 17.0...	26.0	181.212	....	−0.38	1800.47	9.9378	+0.0050	Seeing 3.
					Mean ..	9.9380		Wt. = 15.

* Two measures.

Weighted mean, $R_2 = 9''.9328 \pm 0''.00028$.

Accordingly the general formula for the screw value is $R = 9''.9328 - 0''.000055\ (T - 28^\circ)$.

ECCENTRICITY OF THE TRANSVERSE WIRE.

The central transverse wire departs slightly from the optical axis of the telescope, so that when the bed-plate is properly centered and the micrometer revolved, the intersection of the fixed wire with the transverse wire moves about a star at rest in the center of the field in a small circle, of which the diameter is about 3″. It thus appears that the eccentricity is about 1″.5.

Now 0°.01, or 36″, is the smallest reading of graduation on the vernier of the position circle, and therefore the influence which this cause can exert on the determination of the correction ν below is wholly insensible. It may be noted that the two verniers of the position circle always agree in reading within 0°.01. For the sake of uniformity, however, one vernier was used throughout.

THE PARALLEL.

This was determined from the trails of equatorial stars on the meridian, small stars usually being preferred. Where the micrometer is not required to be removed from the telescope, and the instrument is very rigid and steady, experience in various kinds of seeing indicated the desirability of a permanent adjustment of the parallel to a fixed zero. In the Eros work this adjustment was the more desirable, in order that the readings for the rectangular coordinates might fall on the quadrantal or chief divisions of the position circle, to avoid errors of division in graduation, but above all to diminish the liability to error in the settings. Accordingly, as soon after beginning the work as was practicable, an adjustment was effected on a very still night, by which the parallel was made exactly 90°.00, and the micrometer rigidly clamped. The other reading used was of course 180°.00; and in observing, the settings of the vernier were checked before and after each set of measures. The micrometer was never afterwards disturbed, though the parallel was subjected to tests on every convenient occasion, with the telescope on both sides of the pier. All the different observers who independently investigated the parallel agreed that its adjustment was quite satisfactory. There was no suspicion of an error approaching the diameter of the wire in the widest field. It was also shown that there is no sensible torsion of the tube in any of the positions assumed by the telescope in the measurement of Eros. The parallel proved constant (this had been shown also in previous work on the satellites during the summer of 1900), and as the errors which could be introduced into the settings of the position circle on account of the errors of the instrument represent very small angles, and have been corrected for systematically in the reductions, there need be, I think, no fear of remaining errors of parallel in the observations.

It was not the policy to take a very great number of observations on a given night, but to work on as many nights as practicable and at both ends of the night, so that the parallax in question might be deduced from the Washington observations alone, as well as by their combination with others made simultaneously at the European observatories. The chief aim was to secure a high degree of accuracy from a moderate number of observations.

THE DETERMINATION OF ξ AND e.

The coordinate ξ had been determined by Prof. S. J. **Brown**, U. S. Navy, on two occasions, and found to be sensibly fixed.

November 27, 1897, $\xi = -76''$
April 5, 1899, $\xi = -64''$

As given by Professor **Brown** in the Superintendent's Annual Report for 1899, the signs are *plus*, because polar distances had been employed in the reductions. Notwithstanding the apparent fixity of the pole of the instrument, and the perfect performance of the telescope in following stars for long intervals, it was thought best to make an independent investigation of this constant at the conclusion of the Eros work. Accordingly, on February 6, 1901, twelve stars were observed, with the following results (the notation is that used by **Chauvenet**, *Spherical and Practical Astronomy*, Vol. II, p. 381). Each equation is the mean of four readings of the declination circle, two being taken on each side of the pier:

Stars.	$D-\delta=\xi+e\sin(\phi-\delta)$	v
A^1 Tauri	$-64''=\xi+0.29e$	-4.4
o^1 Eridani	$-62=\xi+0.72e$	-7.1
ε Tauri	$-81=\xi+0.34e$	$+12.5$
α Tauri	$-72=\xi+0.38e$	$+3.5$
τ Tauri	$-65=\xi+0.28e$	-3.4
ι Aurigæ	$-71=\xi+0.10e$	$+2.9$
β Eridani	$-62=\xi+0.70e$	-7.1
β Orionis	$-78=\xi+0.73e$	$+8.9$
δ Orionis	$-70=\xi+0.63e$	$+1.0$
α Leporis	$-65=\xi+0.84e$	-4.3
Groombridge 944	$-73=\xi-0.72e$	$+6.3$
ψ Draconis S. P	$-58=\xi-0.93e$	-8.3

Normal equations $821''.0=12.00\xi+3.36e$
$235''.9=3.36\xi+4.46e$

Whence $e=-1''.7\pm2''.6$ $\xi=-67''.9\pm1''.6$

It should be noted that although the declination circles read to 10″ only, yet when account is taken of the actual barometric pressure and temperature in computing the refractions, the resulting values of ξ and e, determined from so many stars, may be made exceedingly accurate.

Thus we may take,

$$\xi=-67''.9;\quad e=-1''.7$$

The smallness of the flexure, e, appears truly remarkable.

DETERMINATION OF η.

Previous observations by Prof. S. J. **Brown**, U. S. Navy, furnish the following determinations of η:

November 27, 1897, $\eta=+104''$
April 5, 1899, $\eta=+87''$

The observation of pairs of stars on several dates gave the following values:

Epoch.	Star.	δ	Star′.	δ'	η	Wt.	c (from Collimators)	i_1	Wt.
1901		° ′		° ′	″		″	″	
Feb. 27	δ Orionis	−0 22	51 H. Cephei	+87 12	+111.6		+117.0	+117.0	
"	ϵ Orionis	−1 16	" "	" "	+111.5		"	+117.0	
"	κ Orionis	−9 42	" "	" "	+116.8		"	+117.0	
"	α Orionis	+7 23	" "	" "	+110.6		"	+117.0	
"	ν Orionis	+14 47	" "	" "	+111.4		"	+117.0	
"	η Geminorum	+22 32	" "	" "	+113.2		"	+117.0	
"	γ Geminorum	+16 29	" "	" "	+111.5		"	+117.0	
"	α Canis Majoris	−16 35	" "	" "	+111.6		"	+117.0	4
					+112.9	4			
May 4	λ Draconis	+69 53	ζ Virginis	−0 6	+108.6		117.0	+121.5	
"	α Draconis	+64 51	"	" "	+113.2		"	.....	
"	λ Draconis	+69 53	m Virginis	−8 12	+111.5		"	+102.0	
"	α Draconis	+64 51	"	" "	+116.0		"	.....	3
					+112.3	3			
May 13	α Ursae Majoris	+62 17	δ Crateris	−14 15	+118.7		+117.0	+111.0	
"	β Leonis	+15 7	6 Ursae Minoris	+88 15	+119.1		"	+ 64.5	1
					+118.9	1			
May 14	δ Crateris	−14 15	4 H. Draconis	+78 10	+119.8		+117.0	+ 79.5	
"	υ Leonis	−0 17	6 Ursae Minoris	+88 15	+113.8		"	+ 61.5	
"	β Leonis	+15 7	32^2 Camelopardalis	+83 57	+113.0		"	+ 72.0	
"	δ^2 Corvi	−15 58	α Ursae Minoris	+88 47	+115.6		"	+ 87.0	
"	γ^1 Virginis	−0 55	6 Ursae Minoris	+88 15	+114.4		"	.....	
"	m Virginis	−8 12	32^2 Camelopardalis	+83 57	+119.4		"	.....	2
"	η Bootis	+18 53	α Ursae Minoris	+88 47	+118.8		"	.....	
					+116.4	2			

The mean by days is $\eta = +114''.0 \pm 0''.9$; also $i_1 = +104''.1 \pm 4''.7$.

The value of c is taken from observations on the United States Capitol, as described below, and the tabulated value of i_1 is deduced from the observations of the stars with this value of c.

It will be noticed that in the first group as here tabulated the equatorial stars are all combined with 51 H. Cephei; accordingly, the resulting values of η are not entirely independent. Also in the subsequent groups the values of η are slightly larger than in the first group. Whether any of this increase in η is due to the temperature rising with the advance of the season is not known. We have therefore adopted in the Eros work $\eta = 110''.0$, a value sufficiently accurate for all purposes and which accords so well with the earlier determinations as to show that this coordinate is essentially unchanged.

THE COLLIMATION c.

This instrumental constant was at first approximated by the observation of transits of stars on the meridian; but the difficulty of reading the right ascension circle with the necessary accuracy, and of avoiding its unknown errors of graduation, was such as to lead eventually to the substitution of the method of collimators, in which the right ascension circle is used on a particular reading merely for pointing. A small collimator of 2 inches aperture and 36 inches focal length was mounted on the base of the dome and sighted upon the helmet of the statue on the dome of the United States Capitol, which afforded a suitable point, distant about five miles. The results of these observations were very satisfactory. It was found from measures taken on two days that the collimation $c=+117''.7\pm1''.9$.

FLEXURE OF DECLINATION AXIS ε.

The flexure of the declination axis was searched for in vain by the well-known method depending on transits of stars above and below the pole. The observations proved to be vitiated by accidental errors greater than the quantity sought, which probably is of the order of 1″.0. The declination axis consists of a turned steel shaft 7 inches in diameter at the lower end, tapering to 5.25 inches at the upper end, and as it is therefore extremely rigid, we may safely assume that the flexure is almost insensible. If the flexure of the axis should be equal to that of the telescope tube, 1″.6, which is a difference in the bending of the two ends not likely to be surpassed by the total bending of so rigid a shaft, the resulting value of i would be

$$i=i_1+\varepsilon\sin\phi=105''.1\pm4''.7.$$

Under the circumstances, it may be safely assumed that ε is extremely small, and that i and i_1 are practically identical.

THE CORRECTION OF PARALLEL DEPENDING ON THE CONSTANTS OF THE INSTRUMENT.

The following quantities were adopted:

$$\left.\begin{array}{l}
R=9''.9328-0''.000055\,(T-28^\circ)\\
\xi=-\ 67''.9\\
e=-\ \ 1''.7\\
\eta=+110''.0\\
\gamma=+129''.3\\
\theta=+121^\circ.6\\
c=+117''.7\\
i_1=+104''.1\\
\varepsilon=+\ \ 1''.6\ \text{(assumed)}\\
i=+105''.0
\end{array}\right\}\ \begin{array}{c}\text{Constants of the 26-inch equatorial}\\ \text{during the Eros work.}\end{array}$$

The deviation of the vertical wire from the true north due to these constants is given by the formulæ

$$\lambda=\gamma\sin(\tau-\theta)\sec\delta+i_1\sec\delta-c\tan\delta-e\cos\varphi\tan\delta\sin\tau$$
$$\lambda=\gamma\sin(\tau-\theta)\sec\delta-i_1\sec\delta+c\tan\delta-e\cos\varphi\tan\delta\sin\tau$$

(CHAUVENET, *Spherical and Practical Astronomy*, Vol. 2, p. 394.) The term involving e may be neglected, since e is small.

This formula is derived on the supposition that the parallel is determined by the trail of a terrestrial object when the instrument is revolved about the declination axis. In the Eros work the trails of equatorial stars on the meridian were used to fix the parallel; hence it will differ by a constant angle from that assumed by CHAUVENET. If the parallel was determined with the telescope west of the pier, this difference would be $\eta+i$. Hence the correct expression for this case would be

$$\lambda+\eta+i$$

which we will designate as ν.

In the Eros work, where the telescope was always above the pier, this would give

$$\nu=\gamma\sin(\tau-\theta)\sec\delta+i\sec\delta-c\tan\delta+\eta+i \quad . \quad . \quad . \quad . \quad \text{for west hour angles,}$$
$$\nu=\gamma\sin(\tau-\theta)\sec\delta-i\sec\delta+c\tan\delta+\eta+i \quad . \quad . \quad . \quad . \quad \text{for east hour angles.}$$

Since rectangular coordinates were measured, the true values of x_0 and y_0 are found by the formulæ for transformation of coordinates

$$x_0=x_1\cos\nu-y_1\sin\nu$$
$$y_0=y_1\cos\nu+x_1\sin\nu$$

where x_1 and y_1 are the measured coordinates. In these formalæ the reference star is taken as the origin; ν is positive when the vertical wire strikes to the eastward of the true north; x is positive when measured northward from the origin; and y is positive when measured eastward from the origin.

The quantities $-y_1\sin\nu$, and $+x_1\sin\nu$, are designated ι in the reductions.

CORRECTIONS FOR REFRACTION.

The refractions have been computed by formula (11) of Circular No. 7 of the International Astrophotographic Conference, of July, 1900, issued by M. LOEWY on January 31, 1901, namely:

$$x_0=x+\mu x\sec^2 X+\mu y\tan Y(\tan X+\tan\delta),$$
$$y_0=y+\mu y\sec^2 Y+\mu x\tan Y(\tan X-\tan\delta).$$

As the parallel of the micrometer in this work was determined by the trails of equatorial stars on the meridian, not by the apparent parallel at the place of observation, the last terms of these formulæ depending on tan δ have been omitted.

The computations have been carefully made and checked in the usual way, which will probably assure reasonable accuracy. In order, however, to guard against possible errors in the computations or in the printing, we have tabulated in columns A and D the two terms of the refraction resulting from the above formula under the designation ρ' and ρ''. The sum of these corrections, $\rho'+\rho''=\rho$, is applied to the observed values of x and y.

THE RECORDING OF THE OBSERVATIONS.

This was done mainly by Mr. W. WALTER DINWIDDIE, who proved very rapid and accurate, and in other respects contributed much to the success of the Eros Observations. He took the nearest second from the face of the chronometer on the table before him, and usually was able to get the true time of the bisection very accurately by noticing the motion of the reading lamp in the observer's hand, which afforded a signal frequently quicker than that conveyed by the word "Now!" The times recorded in the observations have not been corrected for the time required for the transmission of signal. Some experiments and a careful consideration of the magnitude of this personal equation lead me to fix its average value at $-0^s.20$. This correction should be applied to all the mean times of observation. It may be noted, however, that as the $\varDelta\alpha$ and $\varDelta\delta$ are thereby slightly increased or decreased according to the positions of the comparison stars and the direction of motion of Eros, probably no appreciable error will be introduced if this correction is neglected.

In the investigation of the constants of the great equatorial begun just after the conclusion of the Eros work, Mr. L. G. HOXTON, now of the National Bureau of Standards, voluntarily rendered valuable assistance. Without his aid, in the absence of Mr. DINWIDDIE on the Eclipse Expedition to Sumatra, it would have been difficult to have brought the observations for constants to a satisfactory conclusion. In addition to his zeal and interest in astronomical work, he furnished laboratory experience of decided value in manipulating the complicated machinery of the 26-inch equatorial.

ARRANGEMENT OF THE OBSERVATIONS ON THE PAGE.

The observations are arranged in blocks. The first line at the head of each block contains the date and a general reference number for the observation.

The columns headed t and t' contain the times of observation for the adjacent $\varDelta\alpha\cos\delta$, $\varDelta\alpha'\cos\delta$; $\varDelta\delta$, $\varDelta\delta'$; the accented and unaccented quantities denoting readings taken on opposite sides of coincidence, which was usually about $100.^r042$. The difference in revolutions above or below this figure furnishes a criterion of the symmetry of the measures on the two sides of coincidence, and is useful in detecting any considerable mistake in reading which might occur. It must not, however, be supposed that the measured distances on the two sides should be exactly equal, since the motion of Eros continually changes them. When the recorded times were unsymmetrical, interpolated values were introduced. Such values are inclosed in parentheses.

The columns A and D contain the hour angles τ and the zenith distances ζ used in computing the refraction; also the two terms ρ' and ρ'' of the refraction formula.

In the first line beneath columns A and D are given the readings of the barometer and thermometer, B and T.

In the lower half of each block beneath columns A, D, are given the designations of small stars near Eros in the field with their estimated magnitudes, and approximate coordinates referred to the comparison star used. The comparison star is always indicated by the absence of coordinates. These approximate coordinates are estimates made from sketches of the field. In cases where one sketch of the field applies to several successive observations, only the comparison star and Eros are repeated. In the last line is given the situation of Eros with regard to the comparison star and the estimated magnitude of Eros. The situation corresponds to the time of the measures x_0 and y_0 rather than the time of sketching the field.

Beneath the record of each observation the quantities y and x are the measured coordinates deduced from the observation, ρ is the correction for refraction, and ι the correction for parallel. The quantities y_0 and x_0 are the corrected coordinates. In the columns headed t are given the average clock time of the observations for y and x, respectively; Δt the clock correction; and finally the Washington mean time of each observation.

The last column contains some remarks and notes. The weight attached to each observation is usually assigned from the seeing, but is occasionally modified by other considerations.

In concluding this introduction, special acknowledgment should be made of the important part taken by the late Mr. GEORGE K. LAWTON in effecting the reductions of the Eros work, which were largely under his supervision from the first.

NOTE.

After this Eros work was all in plate, an error was discovered in the computation of the differential refraction.

On page A XIX, strike out lines 28, 29, and 30; and for lines 31–36 substitute the following:

The computations have been carefully made and checked in the usual way, which will probably assure reasonable accuracy. In order, however, to guard against possible errors in the computations or in the printing, the values of the three terms in the above formulae have been given separately. ρ' and ρ'' are tabulated in the columns A and D, and ρ''', on page A 66. The sum of the corrections, $\rho'+\rho''=\rho$, is applied to the observed values of x and y, while ρ''' is applied to x_0 and y_0, pages A 3–A 65, to give the similar quantities on pages A 69–A 72.

TWENTY-SIX INCH EQUATORIAL.

OBSERVATIONS AND REDUCTIONS.

1.

1900 October 9.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
7 26 15	31.877	26.076	7 29 10	τ	$-6^h\ 1^m.7$	$-5^h\ 55^m.8$		7 32 10	25.031	33.242	7 34 44	Coincidence 29r.024 by ten settings. The instrumental error is here larger than usual, on account of a correction to the assumed parallel of +0°.52. After the readjustment of parallel on October 10 this correction is much diminished. Field taken at 7h 24m. Focal reading 2in.49. Power 388. Seeing 2–3. Weight 2.
	.926	.008		ζ	62°.5	61°.6			24.997	.248		
	.900	.016		ρ'	−0″.031	+0″.020			25.033	.260		
	.885	.065							25.025	.317		
7 27 32	31.887	26.087	7 30 55	ρ''	−0″.016	+0″.012		7 33 54	24.948	33.377	7 36 46	
7 26 53.5	31.895	26.050	7 30 2.5		$B=30^{in}.0$	$T=56°.0$		7 33 2.0	25.007	33.289	7 35 45.0	
	″			*Star*	y	x	*Mag.*		″			
	$y=-29.026$			a	...	...	11.5		$x=+41.128$			
7 28 28.0	$\rho=-0.047$			b	−165″	+10″	12.0	7 34 23.5	$\rho=+0.032$			
$\Delta t=+6.2$	$\iota=-0.277$			c	−50	+105	11.5	$\Delta t=+6.3$	$\iota=-0.231$			
7 28 34.2	$y_0=-29.350$			Eros n. p.			10.5	7 34 29.8	$x_0=+40.929$			

2.

October 9.

h m s	r	r	h m s					h m s	r	r	h m s	
7 38 42	34.454	23.684	7 41 0	τ	$-5^h\ 49^m.6$	$-5^h\ 45^m.6$		7 43 5	27.151	30.734	7 44 51	
	.431	.695		ζ	60°.7	60°.1			.130	.770		
	.398	.677		ρ'	+0″.052	+0″.008			.163	.759		
	.412	.648							.199	.753		
7 40 10	34.371	23.659	7 42 5	ρ''	−0″.005	−0″.017		7 44 12	27.187	30.776	7 46 5	
7 39 26.0	34.413	23.673	7 41 32.5		$B=30^{in}.0$	$T=56°.0$		7 43 38.5	27.166	30.758	7 45 28.0	
	″			*Star*	y	x	*Mag.*		″			
	$y=+53.335$			a	+180″	−30″	11.2		$x=+17.838$			Field taken at 7h 51m. Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
7 40 29.2	$\rho=+0.047$			b	...	...	12.0	7 44 33.2	$\rho=-0.009$			
$\Delta t=+6.4$	$\iota=-0.110$			c	+115	+90	11.4	$\Delta t=+6.4$	$\iota=+0.407$			
				d	+10	+170	12.4					
7 40 35.6	$y_0=+53.272$			Eros n. f.			10.2	7 44 39.6	$x_0=+18.236$			

3.

October 9.

h m s	r	r	h m s					h m s	r	r	h m s	
8 31 15	24.553	33.428	8 33 37	τ	$-4^h\ 57^m.0$	$-4^h\ 52^m.6$		8 35 28	32.073	25.952	8 37 35	
	.589	.403		ζ	52°.6	51°.9			.079	.935		
	.561	.371		ρ'	+0″.031	+0″.010			.081	.918		
	.498	.412							.067	.889		
8 32 38	24.621	33.389	8 34 34	ρ''	−0″.004	−0″.006		8 36 46	32.121	25.798	8 39 27	
8 31 56.5	24.564	33.401	8 34 5.5		$B=30^{in}.0$	$T=56°.0$		8 36 7.0	32.084	25.898	8 38 31.0	
	″			*Star*	y	x	*Mag.*		″			
	$y=+43.885$			a	+105″	−120″	....		$x=+30.719$			Field taken at 8h 29m. Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
8 33 1.0	$\rho=+0.027$			b	...	...	12.0	8 37 19.0	$\rho=+0.004$			
$\Delta t=+7.1$	$\iota=-0.212$			c	+135	+110	11.2	$\Delta t=+7.2$	$\iota=+0.343$			
8 33 8.1	$y_0=+43.700$			Eros n. f.			10.1	8 37 26.2	$x_0=+31.066$			

4.

October 9.

h m s	r	r	h m s					h m s	r	r	h m s	
8 41 15	24.291	33.641	8 43 17	τ	$-4^h\ 47^m.0$	$-4^h\ 42^m.8$		8 45 48	29.239	28.883	8 47 24	At 9h 4m the micrometer coincidence was readjusted to the usual reading at about 100r. The mean of ten settings makes the coincidence 100r.039. A very careful diagram of the field.
	.308	.747		ζ	51°.0	50°.3			.269	.915		
	.317	.753		ρ'	−0″.031	0″.000			.194	.938		
	.341	.792							.205	.942		
8 42 30	24.320	33.764	8 44 32	ρ''	+0″.001	+0″.006		8 47 0	29.221	28.949	8 48 19	
8 41 52.5	24.315	33.739	8 43 54.5		$B=30^{in}.0$	$T=56°.0$		8 46 24.0	29.226	28.925	8 47 51.5	
	″			*Star*	y	x	*Mag.*		″			
	$y=-46.800$			a	+40″	−160″	....		$x=-1.494$			Field taken at 8h 52m. Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
8 42 53.5	$\rho=-0.030$			b	−110	−110	12.0	8 47 7.8	$\rho=+0.006$			
$\Delta t=+7.3$	$\iota=+0.039$			c	...	...	11.2	$\Delta t=+7.3$	$\iota=-0.379$			
8 43 0.8	$y_0=-46.791$			Eros s. p.			10.0	8 47 15.1	$x_0=-1.867$			

5. 1900 OCTOBER 9.

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
17 25 30	96.314	103.827	17 28 52	τ	$+3^h\ 59^m.9$	$+4^h\ 4^m.6$	17 31 26	104.843	95.068	17 33 15	Illumination not good.
	.292	.813		ζ	43°.3	44°.1		.882	.083		
	.209	.842		ρ′	−0″.020	+0″.014		.912	.070		
	.212	.870						.939	95.048		
17 27 35	96.323	103.823	17 30 30	ρ″	+0″.002	−0″.002	17 32 20	104.954	94.977	17 34 8	
17 26 32.5	96.270	103.835	17 29 41.0		$B=30^{in}.0$	$T=44°.0$	17 31 53.0	104.906	95.049	17 33 41.5	

	″		Star	y	x	Mag.		″		
	$y=-37.567$		a	...	...	10.0		$x=+48.949$		Field taken at $17^h\ 22^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
17 28 6.8	$\rho=-\ 0.018$		b	−100″	−20″	12.5	17 32 47.2	$\rho=+\ 0.012$		
$\Delta t=+14.6$	$\iota=-\ 0.395$		c	+60	−60	7.0	$\Delta t=+14.6$	$\iota=-\ 0.335$		
			d	−50	+180	11.5				
17 28 21.4	$y_0=-37.980$		Eros n. p.			....	17 33 1.8	$x_0=+48.626$		

6. OCTOBER 9.

h m s	r	r	h m s								
17 36 45	95.963	104.072	17 39 10	τ	$+4^h\ 10^m.4$						Daylight put out small stars. Could not observe the declinations or estimate the magnitudes a second time.
	96.040	.030		ζ	45°.0						
	.038	.053		ρ′	−0″.022						
	.063	.048									
17 38 8	96.046	104.055	17 40 8	ρ″	+0″.003						
17 37 26.5	96.030	104.052	17 39 39.0		$B=30^{in}.0$	$T=44°.0$					

	″		Star	y	x	Mag.				
	$y=-39.837$		a	...	...	10.0				Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
17 38 32.8	$\rho=-\ 0.019$									
$\Delta t=+14.7$	$\iota=-\ 0.473$									
17 38 47.5	$y_0=-40.329$		Eros n. p.			....				

7. OCTOBER 10.

h m s	r	r	h m s				h m s	r	r	h m s	
7 11 40	98.401	101.680	7 13 50	τ	$-6^h\ 12^m.5$	$-6^h\ 9^m.0$	7 15 40	100.424	99.828	7 17 0	
	.429	.699		ζ	63°.9	63°.4		.393	.862		
	.402	.672		ρ′	+0″.019	−0″.001		.364	.881		
	.391	.660						.330	.903		
7 13 7	98.398	101.675	7 14 55	ρ″	+0″.003	−0″.007	7 16 40	100.298	99.900	7 18 3	
7 12 23.5	98.404	101.677	7 14 22.5		$B=30^{in}.0$	$T=55°.0$	7 16 10.0	100.362	99.875	7 17 31.5	

	″		Star	y	x	Mag.		″		
	$y=+16.253$		a	...	...	10.2		$x=-2.419$		Field taken at $7^h\ 5^m$. Focal reading $2^{in}.49$. Power 606. Seeing 2. Weight 3.
7 13 23.0	$\rho=+\ 0.022$		b	−110″	−20″	13.0	7 16 50.8	$\rho=-0.008$		
$\Delta t=+6.0$	$\iota=+\ 0.042$		c	−90	−130	13.0	$\Delta t=+6.1$	$\iota=+0.119$		
7 13 29.0	$y_0=+16.317$		Eros s. f.			10.2	7 16 56.9	$x_0=-2.308$		

8. OCTOBER 10.

h m s	r	r	h m s				h m s	r	r	h m s	
7 34 15	98.771	101.192	7 36 32	τ	$-5^h\ 49^m.8$	$-5^h\ 45^m.8$	7 38 25	101.801	98.128	7 40 17	
	.773	.198		ζ	60°.6	60°.0		.798	.111		
	.790	.201		ρ′	+0″.012	+0″.008		.817	.080		
	.776	.198						.841	.040		
7 35 35	98.791	101.252	7 37 39	ρ″	−0″.005	−0″.004	7 39 43	101.859	98.033	7 41 37	
7 34 55.0	98.780	101.208	7 37 5.5		$B=30^{in}.0$	$T=54°.0$	7 39 4.0	101.823	98.078	7 40 57.0	

	″		Star	y	x	Mag.		″		
	$y=+12.057$		a	...	...	10.5		$x=+18.597$		Field taken at $7^h\ 43^m$. Focal reading $2^{in}.49$. Power 606. Seeing 3. Weight 3.
7 36 0.2	$\rho=+\ 0.007$		b	−110″	−20″	12.8	7 40 0.5	$\rho=+\ 0.004$		
$\Delta t=+6.3$	$\iota=-\ 0.117$		c	−110	−120	12.8	$\Delta t=+6.4$	$\iota=+\ 0.087$		
7 36 6.5	$y_0=+11.947$		Eros n. f.			10.2	7 40 6.9	$x_0=+18.688$		

9. 1900 OCTOBER 10.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 20 2	99.704	100.281	8 21 58	τ	$-5^h\ 4^m.1$	$-4^h\ 59^m.9$	8 24 11	106.002	93.982	8 26 23	
	.662	.321		ζ	53°.6	52°.9	39	.044	.968		
	.691	.357					(51)	.049	.933		
	.670	.353		ρ'	+0".002	+0".020	(3)	.014	.909		
8 21 17	99.658	100.321	8 23 0	ρ''	−0".009	0".000	8 25 15	106.054	93.885	8 27 16	
8 20 39.5	99.677	100.327	8 22 29.0	$B=30^{in}.0$		$T=53°.0$	8 24 47.8	106.033	93.935	8 26 49.5	

	"		Star	y	x	Mag.		"		
	$y=+3.228$		a	...	...	10.5		$x=+60.078$		Field taken at $8^h\ 18^m$. Focal reading $2^{in}.49$. Power 606. Seeing 3. Weight 3.
8 21 34.2	$\rho=-0.007$		b	−120"	−20"	12.3	8 25 45.6	$\rho=+0.020$		
$\Delta t=+7.0$	$\iota=-0.446$		c	−110	−110	12.5	$\Delta t=+7.0$	$\iota=+0.019$		
8 21 41.2	$y_0=+2.775$		Eros n. f.			10.3	8 25 52.6	$x_0=+60.117$		

10. OCTOBER 10.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 15 15	98.140	102.030	16 18 27	τ	$+2^h\ 53^m.7$	$+2^h\ 55^m.6$	16 17 0	104.548	95.793	16 20 24	
	.058	.071		ζ	32°.4	32°.7		.392	.829		
	.039	.062						.432	.903		
	.092	.047		ρ'	−0".008	−0".012		.378	95.961		
16 17 23	98.080	102.057	16 20 9	ρ''	0".000	0".000	16 19 20	104.342	96.018	16 21 54	
16 16 19.0	98.082	102.053	16 19 18.0	$B=30^{in}.0$		$T=46°.0$	16 18 10.0	104.418	95.901	16 21 9.0	

	"		Star	y	x	Mag.		"		
	$y=-19.720$		a	...	...	11.5		$x=-42.295$		Field taken at $16^h\ 13^m$. Focal reading $2^{in}.49$. Power 606. Seeing 3. Weight 3.
16 17 48.5	$\rho=-0.008$		b	+100"	+90"	11.8	16 19 39.5	$\rho=-0.012$		
$\Delta t=+13.6$	$\iota=+0.387$		c	−60	+180	11.5	$\Delta t=+13.6$	$\iota=-0.177$		
16 18 2.1	$y_0=-19.341$		Eros s. p.			10.2	16 19 53.1	$x_0=-42.484$		

11. OCTOBER 10.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 29 16	97.768	102.500	16 32 12	τ	$+3^h\ 7^m.7$	$+3^h\ 13^m.9$	16 35 37	103.387	97.061	16 38 20	Thin clouds.
	.757	.456		ζ	34°.7	35°.7		.331	.009		
	.800	.418						.291	.048		
	.712	.384		ρ'	−0".010	−0".009		.220	.094		
16 31 16	97.734	102.397	16 34 9	ρ''	0".000	0".000	16 37 28	103.228	97.137	16 40 11	
16 30 16.0	97.754	102.431	16 33 10.5	$B=30^{in}.0$		$T=45°.5$	16 36 32.5	103.291	97.070	16 39 16.0	

	"		Star	y	x	Mag.		"		
	$y=-23.226$		a	...	...	11.4		$x=-30.893$		Field taken at $16^h\ 41^m$. Focal reading $2^{in}.49$. Power 606. Seeing 3. Weight 3.
16 31 43.2	$\rho=-0.010$		b	+120"	+100"	11.8	16 37 54.2	$\rho=-0.009$		
$\Delta t=+13.8$	$\iota=+0.319$		c	−110	+150	11.5	$\Delta t=+13.9$	$\iota=-0.215$		
16 31 57.0	$y_0=-22.917$		Eros s. p.			10.2	16 38 8.1	$x_0=-31.117$		

12. OCTOBER 10.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 46 18	97.277	102.827	16 49 0	τ	$+3^h\ 24^m.4$	$+3^h\ 28^m.8$	16 51 15	101.999	98.201	16 53 3	Thin clouds, seeing worse. At $17^h\ 5^m$ the parallel of micrometer found to be +0°.52. A correction for this error must be applied to all the foregoing measures. Micrometer clamp loosened, and parallel adjusted to 0°.00 of the position circle by repeated trails of equatorial stars.
	.292	.813		ζ	37°.4	38°.2		102.019	.230		
	.348	.837						102.005	.245		
	.330	.839		ρ'	−0".012	−0".005		101.983	.261		
16 48 13	97.380	102.848	16 50 13	ρ''	0".000	0".000	16 52 32	102.004	98.278	16 54 20	
16 47 15.5	97.321	102.833	16 49 36.5	$B=30^{in}.0$		$T=45°.0$	16 51 53.5	102.002	98.243	16 53 41.5	

	"		Star	y	x	Mag.		"		
	$y=-27.372$		a	...	...	11.4		$x=-18.667$		Field taken at $16^h\ 56^m$. Focal reading $2^{in}.49$. Power 606. Seeing 2. Weight 2.
16 48 26.0	$\rho=-0.012$		b	+120"	+90"	11.9	16 52 47.5	$\rho=-0.005$		
$\Delta t=-14.0$	$\iota=+0.196$		c	−60	+190	11.5	$\Delta t=+14.0$	$\iota=-0.252$		
16 48 40.0	$y_0=-27.188$		Eros s. p.			10.0	16 53 1.5	$x_0=-18.924$		

13. 1900 OCTOBER 11.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	Micrometer lamp out of order, removed, and hand lamp inserted in its place. Illumination satisfactory.
8 17 39	84.063	115.918	8 20 39	τ	$-5^{h}\ 1^{m}.2$		$-4^{h}\ 53^{m}.0$	8 26 24	105.289	94.415	8 28 50	
	.012	.920		ζ	53°.0		51°.7		.382	.382		
	.152	.939		ρ'	$+0''.112$		$+0''.018$		.350	.381		
	.094	.921							.402	.270		
8 18 52	84.075	115.828	8 22 46	ρ''	$-0''.007$		$-0''.021$	8 27 48	105.516	94.242	8 29 42	
8 18 15.5	84.079	115.905	8 21 42.5		$B=29^{in}.9$		$T=56°.5$	8 27 6.0	105.388	94.338	8 29 16.0	
	″			*Star*	y	x	*Mag.*		″			
	$y=+158.046$			a	...	...	11.2		$x=+54.874$			Field taken at $8^{h}\ 30^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 4. Weight 3.
8 19 59.0	$\rho=+\ 0.105$			b	$+125''$	$-100''$	12.1	8 28 11.0	$\rho=-\ 0.003$			
$\Delta t=+6.9$	$\iota=-\ 0.372$			c	$+\ 60$	$+\ 90$	12.5	$\Delta t=+7.1$	$\iota=+\ 1.237$			
8 20 5.9	$y_0=+157.779$			Eros n. f.			10.2	8 28 18.1	$x_0=+56.108$			

14. OCTOBER 11.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
8 47 20	91.536	108.481	8 50 5	τ	$-4^{h}\ 31^{m}.7$		$-4^{h}\ 27^{m}.5$	8 52 23	102.029	97.783	8 53 52	
	.570	.449		ζ	48°.4		47°.7		.069	.761		
	.579	.407		ρ'	$+0''.050$		$+0''.006$		.049	.774		
	.523	.422							.046	.762		
8 48 50	91.563	108.450	8 51 24	ρ''	$-0''.002$		$-0''.007$	8 53 15	102.091	97.751	8 54 52	
8 48 5.0	91.554	108.442	8 50 44.5		$B=29^{in}.9$		$T=58°.0$	8 52 49.0	102.057	97.766	8 54 22.0	
	″			*Star*	y	x	*Mag.*		″			
	$y=+83.865$			a	$-60''$	$-\ 70''$	11.2		$x=+21.309$			Field taken at $8^{h}\ 54^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 4. Weight 4.
8 49 24.8	$\rho=+\ 0.048$			b	$+65$	-160	11.8	8 53 35.5	$\rho=-\ 0.001$			
$\Delta t=+7.4$	$\iota=-\ 0.140$			c	..	...	12.2	$\Delta t=+7.4$	$\iota=+\ 0.669$			
8 49 32.2	$y_0=+83.773$			Eros n. f.			10.2	8 53 42.9	$x_0=+21.977$			

15. OCTOBER 11.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
16 29 15	98.349	101.589	16 31 20	τ	$+3^{h}\ 11^{m}.4$		$+3^{h}\ 16^{m}.1$	16 33 56	106.938	92.838	16 36 12	Thin clouds.
	.388	.550		ζ	35°.3		36°.0		106.963	.862		
	.361	.574		ρ'	$+0''.007$		$+0''.020$		107.049	.829		
	.351	.570							.064	.800		
16 30 36	98.398	101.599	16 32 31	ρ''	$0''.000$		$0''.000$	16 35 5	107.073	92.780	16 37 15	
16 29 55.5	98.369	101.576	16 31 55.5		$B=29^{in}.9$		$T=47°.0$	16 34 30.5	107.017	92.822	16 36 43.5	
	″			*Star*	y	x	*Mag.*		″			
	$y=+15.926$			a	..	...	11.0		$x=+70.491$			Field taken at $16^{h}\ 27^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
16 30 55.5	$\rho=+\ 0.007$			b	$+90''$	$+\ 10''$	12.2	16 35 37.0	$\rho=+\ 0.020$			
$\Delta t=+13.8$	$\iota=-\ 0.584$			c	0	$+210$	11.5	$\Delta t=+13.8$	$\iota=+\ 0.131$			
16 31 9.3	$y_0=+15.349$			Eros n. f.			10.2	16 35 50.8	$x_0=+70.642$			

16. OCTOBER 11.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
16 48 32	98.848	101.107	16 50 20	τ	$+3^{h}\ 30^{m}.5$		$+3^{h}\ 34^{m}.4$	16 52 35	108.501	91.385	16 54 36	Thin clouds, but seeing steady. The M. T. clock, corrected automatically at noon, had a daily rate of -20^{s}, and was not used after this observation.
	.888	.128		ζ	38°.4		39°.1		.517	.333		
	.872	.123		ρ'	$+0''.005$		$+0''.024$		.553	.329		
	.861	.118							.577	.312		
16 49 47	98.875	101.127	16 51 14	ρ''	$+0''.001$		$0''.000$	16 53 22	108.594	91.287	16 55 20	
16 49 9.5	98.869	101.121	16 50 47.0		$B=29^{in}.9$		$T=47°.0$	16 52 58.5	108.548	91.329	16 54 48.0	
	″			*Star*	y	x	*Mag.*		″			
	$y=+11.184$			a	...	...	11.2		$x=+85.508$			Field taken at $16^{h}\ 56^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
16 49 58.2	$\rho=+\ 0.006$			b	$+105''$	$+\ 35''$	12.4	16 53 53.2	$\rho=+\ 0.024$			
$\Delta t=+14.0$	$\iota=-\ 0.723$			c	0	$+210$	12.0	$\Delta t=+14.1$	$\iota=+\ 0.090$			
16 50 12.2	$y_0=+10.467$			Eros n. f.			10.1	16 54 7.3	$x_0=+85.622$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
17.					1900 October 15.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 35 54	98.232	101.592	6 37 40	τ	$-6^{h}\ 26^{m}.0$	$-6^{h}\ 22^{m}.6$		6 39 30	98.567	101.519	6 41 7	Chronometer Negus, No. 599, daily rate $+0^{s}.5$, used for the rest of the work. For Nos. 17–24 it was $5^{h}\ 24^{m}\ 8^{s}$ fast; the observed t's have been decreased $5^{h}\ 24^{m}$ and the Δt's increased this amount.
	.279	.583		ζ	$65^{\circ}.0$	$64^{\circ}.5$			.596	.546		
	.272	.616							.556	.523		
	.323	.635		ρ'	$+0''.019$	$+0''.009$			.590	.549		
6 37 3	98.297	101.623	6 38 40	ρ''	$-0''.007$	$-0''.008$		6 40 30	98.559	101.514	6 41 51	
6 36 28.5	98.281	101.610	6 38 10.0		$B=29^{in}.9$	$T=65^{\circ}.5$		6 40 0.0	98.574	101.530	6 41 29.0	
	″			*Star*	y	x	*Mag.*		″			Field taken with power 200, at $6^{h}\ 33^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
	$y=+16.531$			a	..	..	10.2		$x=+14.680$			
6 37 19.2	$\rho=+0.012$			b	$-50''$	$+75''$	11.2	6 40 44.5	$\rho=+0.001$			
$\Delta t=-8.5$	$\iota=+0.018$			c	$+60$	-35	11.3	$\Delta t=-8.5$	$\iota=-0.022$			
6 37 10.7	$y_0=+16.561$			Eros n. f.			....	6 40 36.0	$x_0=+14.659$			
18.					October 15.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 43 30	101.495	98.526	6 44 55	τ	$-6^{h}\ 18^{m}.6$	$-6^{h}\ 14^{m}.2$		6 47 53	97.861	102.224	6 49 20	
	.468	.483		ζ	$63^{\circ}.9$	$63^{\circ}.3$			.823	.196		
	.414	.549							.828	.168		
	.439	.642		ρ'	$+0''.016$	$+0''.012$			.833	.233		
6 44 25	101.460	98.573	6 46 1	ρ''	$-0''.009$	$-0''.006$		6 48 54	97.820	102.204	6 50 19	
6 43 57.5	101.455	98.555	6 45 28.0		$B=29^{in}.9$	$T=64^{\circ}.5$		6 48 23.5	97.833	102.205	6 49 49.5	
	″			*Star*	y	x	*Mag.*		″			
	$y=+14.401$			a	...	...	10.2		$x=+21.711$			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
6 44 42.8	$\rho=+0.007$							6 49 6.5	$\rho=+0.006$			
$\Delta t=-8.5$	$\iota=+0.027$							$\Delta t=-8.5$	$\iota=-0.018$			
6 44 34.3	$y_0=+14.435$			Eros n. f.			....	6 48 58.0	$x_0=+21.699$			
19.					October 15.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 52 40	101.125	98.862	6 54 0	τ	$-6^{h}\ 9^{m}.4$	$-6^{h}\ 6^{m}.4$		6 55 45	97.301	102.826	6 57 2	
	.084	.906		ζ	$62^{\circ}.6$	$61^{\circ}.8$			.262	.788		
	.112	.873							.232	.898		
	.125	.897		ρ'	$+0''.012$	$+0''.014$			.208	.870		
6 53 44	101.138	98.903	6 55 5	ρ''	$0''.011$	$-0''.004$		6 56 35	97.191	102.912	6 57 56	
6 53 12.0	101.117	98.888	6 54 32.5		$B=29^{in}.9$	$T=64^{\circ}.0$		6 56 10.0	97.239	102.859	6 57 29.0	
	″			*Star*	y	x	*Mag.*		″			
	$y=+11.069$			a	..	...	10.2		$x=+27.908$			Field taken at $7^{h}\ 1^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
6 53 52.2	$\rho=+0.001$			b	$-25''$	$+110''$	11.8	6 56 49.5	$\rho=+0.010$			
$\Delta t=-8.5$	$\iota=+0.038$			c	$+90$	-60	11.9	$\Delta t=-8.5$	$\iota=-0.015$			
6 53 43.7	$y_0=+11.108$			Eros n. f.			10.2	6 56 41.0	$x_0=+27.903$			
20.					October 15.							
h m s	r	r	h m s					h m s	r	r	h m s	
8 31 0	102.201	97.608	8 33 22	τ	$-4^{h}\ 30^{m}.0$	$-4^{h}\ 25^{m}.5$		8 36 0	88.817	111.363	8 37 59	
	.238	.632		ζ	$47^{\circ}.8$	$47^{\circ}.1$			.796	.398		
	.258	.640							.779	.381		
	.252	.615		ρ'	$-0''.014$	$+0''.033$			.765	.368		
8 32 34	102.239	97.601	8 34 44	ρ''	$-0''.008$	$+0''.002$		8 36 54	88.774	111.413	8 39 0	
8 31 47.0	102.238	97.619	8 34 3.0		$B=29^{in}.9$	$T=61^{\circ}.0$		8 36 27.0	88.786	111.385	8 38 29.5	
	″			*Star*	y	x	*Mag.*		″			
	$y=-22.938$			a	..	..	10.5		$x=+112.225$			Field taken at $8^{h}\ 27^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
8 32 55.0	$\rho=-0.022$			b	$-45''$	$+90''$	11.8	8 37 28.2	$\rho=+0.035$			
$\Delta t=-8.4$	$\iota=+0.117$			c	$+85$	-30		$\Delta t=-8.4$	$\iota=+0.027$			
8 32 46.6	$y_0=-22.843$			Eros n. p.			10.2	8 37 19.8	$x_0=+112.287$			

21. 1900 OCTOBER 15.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
8 42 49	100.253	99.712	8 43 49	τ	$-4^{h}\ 19^{m}.2$	$-4^{h}\ 15^{m}.7$		8 45 44	96.574	103.574	8 47 32	Seeing blurred. Comparison star b small double; used brighter component which is n. p.
	.267	.786		ζ	$46^{\circ}.1$	$45^{\circ}.5$			.561	.614		
	.250	.768							.550	.639		
	.231	.783		ρ'	$+0''.001$	$+0''.010$			.538	.647		
8 43 31	100.241	99.793	8 44 43	ρ''	$-0''.002$	$0''.000$		8 46 47	96.504	103.671	8 48 37	
8 43 10.0	100.248	99.768	8 44 16.0	$B=29^{in}.9$		$T=61^{\circ}.0$		8 46 15.5	96.545	103.629	8 48 4.5	
	$''$			*Star*	y	x	*Mag.*		$''$			Field taken at $8^{h}\ 50^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
	$y=+\ 2.384$			a	$+20''$	$-\ 95''$	10.4		$x=+35.179$			
8 43 43.0	$\rho=-\ 0.001$			b	..	...	11.8	8 47 10.0	$\rho=+\ 0.010$			
$\Delta t=-8.4$	$\iota=+\ 0.033$			c	$+80$	-135	11.0	$\Delta t=-8.4$	$\iota=\ 0.000$			
8 43 34.6	$y_0=+\ 2.416$			Eros n. f.			10.2	8 47 1.6	$x_0=+35.189$			

22. OCTOBER 15.

h m s	r	r	h m s					h m s	r	r	h m s	
16 32 36	101.414	98.428	16 34 35	τ	$+3^{h}\ 32^{m}.8$	$+3^{h}\ 38^{m}.1$		16 37 55	93.182	106.923	16 39 50	Seeing poor.
	.423	.388		ζ	$38^{\circ}.7$	$39^{\circ}.5$			.164	.957		
	.455	.370							.180	.985		
	.468	.382		ρ'	$-0''.007$	$+0''.019$			.152	106.998		
16 33 54	101.476	98.370	16 35 37	ρ''	$+0''.001$	$0''.000$		16 38 55	93.139	107.012	16 40 58	
16 33 15.0	101.447	98.388	16 35 6.0	$B=29^{in}.8$		$T=54^{\circ}.5$		16 38 25.0	93.163	106.975	16 40 24.0	
	$''$			*Star*	y	x	*Mag.*		$''$			Field taken at $16^{h}\ 28^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
	$y=-15.191$			a	..	...	11.5		$x=+68.590$			
16 34 10.5	$\rho=-\ 0.006$			b	$-60''$	$+220''$	10.4	16 39 24.5	$\rho=+\ 0.019$			
$\Delta t=-8.4$	$\iota=+\ 0.014$			c	-45	$+\ 5$	12.2	$\Delta t=-8.4$	$\iota=+\ 0.005$			
16 34 2.1	$y_0=-15.183$			Eros n. p.			10.2	16 39 16.1	$x_0=+68.614$			

23. OCTOBER 15.

h m s	r	r	h m s					h m s	r	r	h m s	
16 51 1	102.264	97.710	16 52 50	τ	$+3^{h}\ 51^{m}.2$	$+3^{h}\ 56^{m}.7$		16 55 40	88.020	111.761	16 58 40	Seeing very bad; thin clouds and cold wind.
	.288	.687		ζ	$41^{\circ}.6$	$42^{\circ}.5$			.104	.742		
	.247	.650							.082	.698		
	.272	.710		ρ'	$+0''.011$	$-0.''033$			.173	.660		
16 52 6	102.293	97.701	16 54 16	ρ''	$-0''.003$	$+0.''001$		16 57 14	88.202	111.684	17 0 12	
16 51 33.5	102.273	97.692	16 53 33.0	$B=29^{in}.8$		$T=53^{\circ}.0$		16 56 27.0	88.116	111.709	16 59 26.0	
	$''$			*Star*	y	x	*Mag.*		$''$			Focal reading $2^{in}.49$. Power 388. Seeing 1-2. Weight 1.
	$y=+22.749$								$x=-117.162$			
16 52 33.2	$\rho=+\ 0.008$			b	...	...	10.4	16 57 56.5	$\rho=-\ 0.032$			
$\Delta t=-8.4$	$\iota=-\ 0.033$							$\Delta t=-8.4$	$\iota=-\ 0.006$			
16 52 24.8	$y_0=+22.724$			Eros s. f.			....	16 57 48.1	$x_0=-117.200$			

24. OCTOBER 15.

h m s	r	r	h m s					h m s	r	r	h m s	
17 12 57	101.429	98.520	17 14 20	τ	$+4^{h}\ 12^{m}.9$	$+4^{h}\ 17^{m}.1$		17 16 40	89.704	110.182	17 18 59	Seeing steadier.
	.449	.529		ζ	$45^{\circ}.1$	$45^{\circ}.7$			.736	.160		
	.428	.542							.718	.194		
	.417	.583		ρ'	$+0''.008$	$-0''.029$			.738	.172		
17 13 56	101.404	98.571	17 15 20	ρ''	$-0''.005$	$+0''.001$		17 17 41	89.718	110.184	17 20 4	
17 13 26.5	101.425	98.549	17 14 50.0	$B=29^{in}.8$		$T=53^{\circ}.0$		17 17 10.5	89.723	110.178	17 19 31.5	
	$''$			*Star*	y	x	*Mag.*		$''$			Field taken at $17^{h}\ 20^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
	$y=+14.282$			a	$+40''$	$-240''$	11.8		$x=-101.579$			
17 14 8.2	$\rho=+\ 0.003$			b	..	...	10.4	17 18 21.0	$\rho=-\ 0.028$			
$\Delta t=-8.4$	$\iota=-\ 0.033$			c	$+\ 5$	-245	12.2	$\Delta t=-8.4$	$\iota=-\ 0.004$			
17 13 59.8	$y_0=+14.252$			Eros s. f.			10.2	17 18 12.6	$x_0=-101.611$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
25.					1900 OCTOBER 16.						
h m s	r	r	h m s				h m s	r	r	h m s	
6 53 50	111.138	89.053	6 56 9	r	$-6^h\ 2^m.9$	$-5^h\ 59^m.0$	6 58 15	98.542	101.617	6 59 45	
	.089	.013		ζ	61°.6	61°.0		.560	.592		
	.064	.011						.542	.577		
	.088	.023		ρ'	+0″.110	+0″.007		.544	.613		
6 55 11	111.105	89.035	6 57 7	ρ''	−0″.005	−0″.039	6 59 6	98.530	101.621	7 0 34	
6 54 30.5	111.097	89.027	6 56 38.0		$B=29^{in}.8$	$T=61°.0$	6 58 40.5	98.544	101.604	7 0 9.5	
6 55 34.2 $\Delta t=-8.2$	″ $y=+109.598$ $\rho=+\ 0.105$ $\iota=+\ 0.018$				*Star* *y* *x* *Mag.* *a* ... ... 11.8 *b* + 30″ + 85″ 11.9 *c* +125 +130 11.9		6 59 25.0 $\Delta t=-8.2$	″ $x=+15.196$ $\rho=-\ 0.032$ $\iota=-\ 0.154$			Field taken at $6^h\ 50^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
6 55 26.0	$y_o=+109.721$				Eros n. f. 10.2		6 59 16.8	$x_o=+15.010$			
26.					OCTOBER 16.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 31 45	107.338	92.836	7 33 46	r	$-5^h\ 25^m.0$	$-5^h\ 21^m.5$	7 35 24	95.372	104.557	7 37 10	
	.327	.821		ζ	56°.1	55°.6		.348	.554		
	.311	.862						.354	.561		
	.300	.838		ρ'	+0″.057	−0″.016		.406	.568		
7 32 45	107.299	92.821	7 34 33	ρ''	+0″.010	−0″.014	7 36 23	95.391	104.502	7 38 14	
7 32 15.0	107.315	92.836	7 34 9.5		$B=29^{in}.9$	$T=59°.0$	7 35 53.5	95.374	104.548	7 37 42.0	
7 33 12.2 $\Delta t=-8.2$	″ $y=+71.902$ $\rho=+\ 0.067$ $\iota=-\ 0.063$				*Star* *y* *x* *Mag.* *b* 11.9		7 36 47.8 $\Delta t=-8.2$	″ $x=-45.558$ $\rho=-\ 0.030$ $\iota=-\ 0.090$			Focal reading $2^{in}.49$. Power 388. Seeing 2–3. Weight 3.
7 33 4.0	$y_o=+71.906$				Eros s. f.		7 36 39.6	$x_o=-45.678$			
27.					OCTOBER 16.						
h m s	r	r	h m s				h m s	r	r	h m s	
8 32 28	104.943	95.082	8 34 40	r	$-4^h\ 24^m.0$	$-4^h\ 18^m.9$	8 37 8	99.657	100.576	8 39 5	Strong wind.
	.961	.058		ζ	46°.8	46°.0		.633	.558		
	.972	.091						.623	.603		
	.953	.101		ρ'	+0″.028	+0″.001		.634	.627		
8 33 43	104.972	95.098	8 35 52	ρ''	0″.000	−0″.003	8 38 31	99.615	100.633	8 40 4	
8 33 5.5	104.960	95.086	8 35 16.0		$B=29^{in}.9$	$T=55°.0$	8 37 50.0	99.632	100.599	8 40 34.5	
8 34 10.8 $\Delta t=-8.2$	″ $y=+49.034$ $\rho=+\ 0.028$ $\iota=\ \ 0.000$				*Star* *y* *x* *Mag.* *a* − 12″ −100″ 11.7 *b* ... ... 11.8 *c* +120 + 80 11.9 *d* + 35 + 90 11.7		8 39 12.2 $\Delta t=-8.2$	″ $x=+\ 4.802$ $\rho=-\ 0.002$ $\iota=-\ 0.047$			Field taken at $8^h\ 42^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
8 34 2.6	$y_o=+49.062$				Eros n. f. 10.3		8 39 4.0	$x_o=+\ 4.753$			
28.					OCTOBER 16.						
h m s	r	r	h m s				h m s	r	r	h m s	
16 54 1	106.347	93.676	16 56 55	r	$+3^h\ 39^m.5$	$+4^h\ 4^m.2$	16 59 0	94.993	105.428	17 1 23	Micrometer screw slipped in its head before this observation. Head tightened and new coincidence found to be $100^r.072$.
	.361	.680		ζ	42°.9	43°.6		.977	.403		
	.357	.679						.961	.404		
	.356	.690		ρ'	−0″.033	+0″.015		.948	.402		
16 54 56	106.377	93.699	16 57 52	ρ''	+0″.002	−0″.003	17 0 0	94.938	105.421	17 2 14	
16 54 28.5	106.360	93.685	16 57 23.5		$B=30^{in}.1$	$T=40°.0$	16 59 30.0	94.963	105.412	17 1 48.5	
16 55 56.0 $\Delta t=-8.1$	″ $y=-62.944$ $\rho=-\ 0.031$ $\iota=+\ 0.013$				*Star* *y* *x* *Mag.* *a* 7.5		17 0 39.2 $\Delta t=-8.1$	″ $x=+51.889$ $\rho=+\ 0.012$ $\iota=+\ 0.019$			Focal reading $2^{in}.49$. Power 388. Seing 2. Weight 2.
16 55 47.9	$y_o=-62.962$				Eros n. p. ...		17 0 31.1	$x_o=+51.920$			

29. 1900 October 16.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
17 10 38	93.077	107.140	17 13 33	τ	$+4^{h}\ 16^{m}.3$		$+4^{h}\ 21^{m}.0$	17 15 39	106.425	93.588	17 18 3	
	.148	.162		ζ	45°.6		46°.3		.437	.572		
	.131	.148							.438	.557		
	.107	.159		ρ′	−0″.040		+0″.019		.443	546		
17 11 57	93.096	107.152	17 14 43	ρ″	+0″.003		−0″.005	17 16 39	106.444	93.542	17 18 55	
17 11 17.5	93.112	107.152	17 14 8.0		$B=30^{in}.1$		$T=40°.0$	17 16 9.0	106.437	93.561	17 18 29.0	
	″			Star	y	x	Mag.		″			
	$y = -69.722$			a	..	..	7.5		$x = +63.941$			
17 12 42.8	$\rho = -0.037$			b	+60″	−40″	...	17 17 19.0	$\rho = +0.014$			Field taken at $17^{h}\ 19^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
$\Delta t = -8.1$	$\iota = +0.019$			c	+95	0	...	$\Delta t = -8.1$	$\iota = +0.024$			
17 12 34.7	$y_0 = -69.740$			Eros n. p.			...	17 17 10.9	$x_0 = +63.979$			

30. October 17.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
6 6 10	101.707	98.414	6 8 0	τ	$-6^{h}\ 46^{m}.1$		$6^{h}\ 42^{m}.8$	6 9 52	97.320	102.576	6 11 20	
	.697	.427		ζ	67°.3		66°.9		.364	.591		
	.691	.458							.374	.578		
	.704	.450		ρ′	+0″.022		−0″.020		.385	.537		
6 7 29	101.702	98.439	6 8 56	ρ″	+0″.021		−0″.010	6 10 43	97.392	102.532	6 12 25	
6 6 49.5	101.700	98.438	6 8 28.0		$B=30^{in}.1$		$T=50°.0$	6 10 17.5	97.367	102.563	6 11 52.5	
	″			Star	y	x	Mag.		″			
	$y = +16.199$			a	..	...	11.8		$x = -25.804$			
6 7 38.8	$\rho = +0.043$			b	0″	−72″	11.8	6 11 5.0	$\rho = -0.030$			Field taken at $6^{h}\ 1^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
$\Delta t = -8.1$	$\iota = -0.045$			c	55	−160	10.4	$\Delta t = 8.1$	$\iota = -0.022$			
6 7 30.7	$y_0 = +16.197$			Eros s. f.			10.3	6 10 56.9	$x_0 = -25.856$			

31. October 17.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
6 14 20	101.794	98.334	6 15 39	τ	$-6^{h}\ 38^{m}.3$		$-6^{h}\ 35^{m}.0$	6 17 29	95.417	104.772	6 19 7	
	.783	.269		ζ	66°.3		65°.9		.394	.795		
	.772	.249							.377	.783		
	.787	.361		ρ′	+0″.022		+0″.032		.354	.797		
6 15 5	101.760	98.372	6 16 38	ρ″	−0″.030		−0″.010	6 18 23	95.365	104.818	6 19 51	
6 14 42.5	101.779	98.317	6 16 8.5		$B=30^{in}.1$		$T=50°.0$	6 17 56.0	95.381	104.793	6 19 29.0	
	″			Star	y	x	Mag.		″			
	$y = +17.192$								$x = +46.740$			
6 15 25.5	$\rho = 0.008$			b	...	...	11.8	6 18 42.5	$\rho = +0.022$			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
$\Delta t = -8.1$	$\iota = +0.069$							$\Delta t = -8.1$	$\iota = -0.024$			
6 15 17.4	$y_0 = +17.253$			Eros n. f.			....	6 18 34.4	$x_0 = +46.738$			

32. October 17.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A		D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
6 21 31	101.172	98.969	6 23 0	τ	$-6^{h}\ 31^{m}.0$		$-6^{h}\ 27^{m}.8$	6 24 54	98.600	101.393	6 26 5	
	.184	.977		ζ	65°.3		64°.9		.582	.372		
	.159	.962							.607	.347		
	.149	.959		ρ′	+0″.014		−0″.009		.621	.359		
6 22 22	101.132	98.948	6 24 4	ρ″	+0″.010		−0″.005	6 25 40	98.603	101.369	6 26 56	
6 21 56.5	101.159	98.963	6 23 32.0		$B=30^{in}.1$		$T=49°.5$	6 25 17.0	98.603	101.368	6 26 30.5	
	″			Star	y	x	Mag.		″			
	$y = +10.905$			a	...	...	11.8		$x = -13.731$			
6 22 44.2	$\rho = +0.024$			b	−15″	−80″	11.9	6 25 53.8	$\rho = -0.014$			Field taken at $6^{h}\ 24^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 4.
$\Delta t = -8.1$	$\iota = -0.025$			c	−120	−125	10.2	$\Delta t = -8.1$	$\iota = -0.013$			
6 22 36.1	$y_0 = +10.904$			Eros s. f.			10.2	6 25 45.7	$x_0 = -13.758$			

33. 1900 OCTOBER 17.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 21 20	114.075	85.790	16 24 49	τ	$+3^{h}\ 32^{m}.2$	$+3^{h}\ 37^{m}.9$	16 28 0	98.034	102.044	16 29 57	
	.064	.820		ζ	38°.5	39°.4		.024	.015		
	.104	.822						.037	.025		
	.129	.852		ρ'	−0″.066	−0″.006		.047	.026		
16 22 46	114.132	85.838	16 26 15	ρ''	0″.000	−0″.002	16 29 12	98.076	102.023	16 30 48	
16 22 3.0	114.101	85.824	16 25 32.0		$B=30^{in}.0$	$T=39°.0$	16 28 36.0	98.044	102.027	16 30 22.5	

	″		*Star*	y	x	*Mag.*		″		
	$y = -140.324$		a	...	...	10.1		$x = -19.780$		Field taken at $16^{h}\ 17^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 4.
16 23 47.5	$\rho = -\ 0.066$		b	−140″	+40″	11.5	16 29 29.2	$\rho = -\ 0.008$		
$\Delta t = -8.1$	$\iota = -\ 0.005$		c	−20	+105	11.8	$\Delta t = -8.1$	$\iota = +\ 0.034$		
16 23 39.4	$y_0 = -140.395$		Eros s. p.			10.2	16 29 21.1	$x_0 = -19.754$		

34. OCTOBER 17.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
17 5 30	102.731	97.479	17 7 5	τ	$+4^{h}\ 15^{m}.3$	$+4^{h}\ 19^{m}.2$	17 9 1	94.467	105.604	17 11 13	
	.738	.496		ζ	45°.3	45°.8		.477	.558		
	.729	.479						.580	.543		
	.724	.504		ρ'	+0″.015	0″.016		.568	.533		
17 6 20	102.722	97.522	17 8 6	ρ''	−0″.003	+0″.001	17 10 3	94.602	105.536	17 12 13	
17 5 55.0	102.729	97.496	17 7 35.5		$B=30^{in}.0$	$T=38°.0$	17 9 32.0	94.539	105.555	17 11 43.0	

	″		*Star*	y	x	*Mag.*		″		
	$y = +25.987$		a	+135″	+75″	10.1		$x = -54.705$		Field taken at $17^{h}\ 4^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
17 6 45.2	$\rho = +\ 0.012$		b	...	...	11.6	17 10 37.5	$\rho = -\ 0.015$		
$\Delta t = -8.1$	$\iota = -\ 0.017$		c	+150	+40	12.0	$\Delta t = -8.1$	$\iota = -\ 0.007$		
			d	−75	+40	10.4				
17 6 37.1	$y_0 = +25.982$		Eros s. f.			10.2	17 10 29.4	$x_0 = -54.727$		

35. OCTOBER 18.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 16 9	110.635	89.538	6 18 40	τ	$-6^{h}\ 30^{m}.8$	$-6^{h}\ 25^{m}.6$	6 21 4	89.137	111.242	6 23 36	Coincidences with fixed wire $100^{r}.100$ at $6^{h}\ 25^{m}$.
	.616	.557		ζ	65°.1	64°.4	37	.162	.334	28	
	.594	.588					(51)	.140	.279	(42)	
	.606	.649		ρ'	+0″.124	+0″.065	(4)	.170	.264	(58)	
6 17 11	110.618	89.590	6 20 8	ρ''	−0″.060	−0″.053	6 22 18	89.198	111.227	6 25 12	
6 16 40.0	110.614	89.584	6 19 24.0		$B=29^{in}.8$	$T=61°.0$	6 21 46.8	89.161	111.269	6 24 35.2	

	″		*Star*	y	x	*Mag.*		″		
	$y = +104.434$		a	...	...	10.0		$x = +109.788$		Field taken at $6^{h}\ 14^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
6 18 2.0	$\rho = +\ 0.064$		b	+80″	210″	11.8	6 23 11.0	$\rho = +\ 0.012$		
$\Delta t = -8.1$	$\iota = +\ 0.165$						$\Delta t = -8.1$	$\iota = -\ 0.155$		
6 17 53.9	$y_0 = +104.663$		Eros n. f.			10.2	6 23 2.9	$x_0 = +109.645$		

36. OCTOBER 18.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 28 54	102.911	97.224	6 30 37	τ	$-6^{h}\ 18^{m}.5$	$-6^{h}\ 14^{m}.0$	6 33 0	92.121	107.901	6 35 21	Seeing very blurred.
	.876	.225		ζ	63°.5	62°.9	34	.234	.882		
	.862	.231		ρ'	−0″.031	−0″.040	(43)	.215	.870		
	.876	.212					(54)	.231	.850		
6 29 40	102.869	97.204	6 31 45	ρ''	+0″.038	+0″.014	6 34 3	92.220	107.839	6 36 13	
6 29 17.0	102.879	97.219	6 31 11.0		$B=29^{in}.8$	$T=61°.0$	6 33 38.8	92.204	107.868	6 35 47.0	

	″		*Star*	y	x	*Mag.*		″		
	$y = -28.107$							$x = -77.787$		Focal reading $2^{in}.49$. Power 388. Seeing 1-2. Weight 2.
6 30 14.0	$\rho = +\ 0.007$		b	...	...	11.8	6 34 42.9	$\rho = -\ 0.026$		
$\Delta t = -8.1$	$\iota = -\ 0.122$						$\Delta t = -8.1$	$\iota = +\ 0.047$		
6 30 5.9	$y_0 = -28.222$		Eros s. p.			....	6 34 34.8	$x_0 = -77.766$		

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
37.					1900 OCTOBER 18.						
h m s	r	r	h m s				h m s	r	r	h m s	
8 5 22	106.972	93.131	8 7 30	τ	$-4^{h}\ 41^{m}.4$	$-4^{h}\ 37^{m}.4$	8 10 3	99.894	100.278	8 11 14	
	.973	.117		ζ	$49^{\circ}.3$	$48^{\circ}.7$		.892	.270		
	106.982	.092						.915	.262		
	107.007	.072		ρ'	$-0''.043$	$-0''.001$		.922	.253		
8 6 34	107.022	93.084	8 8 37	ρ''	$0''.000$	$+0''.006$	8 10 50	99.928	100.250	8 11 54	
8 5 58.0	106.991	93.099	8 8 3.5		$B=29^{in}.8$	$T=60^{\circ}.0$	8 10 26.5	99.910	100.263	8 11 34.0	
8 7 0.8 $\Delta t=-8.1$	″ $y=-68.987$ $\rho=-\ 0.043$ $\iota=-\ 0.005$			Star a b	y −95″ ..	x Mag. −180″ 10.0 ... 11.6	8 11 0.2 $\Delta t=-8.1$	″ $x=-1.753$ $\rho=+0.005$ $\iota=+0.081$			Field taken at $8^{h}\ 14^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
8 6 52.7	$y_0=-69.035$			Eros s. p.		10.2	8 10 52.1	$x_0=-1.667$			
38.					OCTOBER 18.						
h m s	r	r	h m s				h m s	r	r	h m s	
16 13 50	103.664	96.675	16 15 56	τ	$+3^{h}\ 28^{m}.8$	$+3^{h}\ 33^{m}.0$	16 18 23	98.472	101.992	16 20 3	
	.654	.662		ζ	$38^{\circ}.0$	$38^{\circ}.7$		.462	.935		
	.668	.672						.437	.959		
	.675	.697		ρ'	$+0''.016$	$+0''.005$		.421	.968		
16 14 54	103.674	96.723	16 17 12	ρ''	$0''.000$	$0''.000$	16 19 21	98.431	101.971	16 20 59	
16 14 22.0	103.667	96.686	16 16 34.0		$B=29^{in}.9$	$T=56^{\circ}.0$	16 18 52.0	98.445	101.965	16 20 31.0	
16 15 28.0 $\Delta t=-8.2$	″ $y=+34.668$ $\rho=+\ 0.016$ $\iota=+\ 0.003$			Star a b c	y +115″ ... + 20	x Mag. − 30″ 10.3 ... 11.4 −105 11.0	16 19 41.5 $\Delta t=-8.2$	″ $x=+17.480$ $\rho=+\ 0.005$ $\iota=-\ 0.007$			Field taken at $16^{h}\ 11^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
16 15 19.8	$y_0=+34.687$			Eros n. f.		10.1	16 19 33.3	$x_0=+17.478$			
39.					OCTOBER 18.						
h m s	r	r	h m s				h m s	r	r	h m s	
16 29 0	102.888	97.390	16 31 7	τ	$+3^{h}\ 43^{m}.9$	$+3^{h}\ 47^{m}.9$	16 33 13	97.512	102.935	16 34 53	
	.872	.379		ζ	$40^{\circ}.4$	$41^{\circ}.0$		.482	.943		
	.882	.390						.467	.932		
	.876	.399		ρ'	$+0''.013$	$+0''.008$		.469	.940		
16 30 6	102.881	97.412	16 31 56	ρ''	$0''.000$	$+0''.001$	16 34 17	97.458	102.949	16 35 47	
16 29 33.0	102.880	97.394	16 31 31.5		$B=29^{in}.9$	$T=56^{\circ}.0$	16 33 45.0	97.478	102.940	16 35 20.0	
16 30 32.2 $\Delta t=-8.2$	″ $y=+27.243$ $\rho=+\ 0.013$ $\iota=+\ 0.006$			Star b	y ...	x Mag. ... 11.4	16 34 32.5 $\Delta t=-8.2$	″ $x=+27.124$ $\rho=+\ 0.009$ $\iota=-\ 0.006$			Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
16 30 24.0	$y_0=+27.262$			Eros n. f.		....	16 34 24.3	$x_0=+27.127$			
40.					OCTOBER 18.						
h m s	r	r	h m s				h m s	r	r	h m s	
17 2 47	101.242	99.012	17 4 21	τ	$+4^{h}\ 17^{m}.6$	$+4^{h}\ 21^{m}.4$	17 6 41	95.121	105.190	17 8 12	
	.248	98.968		ζ	$45^{\circ}.6$	$46^{\circ}.2$		.143	.179		
	.242	.982						.125	.188		
	.231	.970		ρ'	$+0''.006$	$+0''.015$		.119	.198		
17 3 48	101.248	98.962	17 5 33	ρ''	$+0''.003$	$+0''.001$	17 7 23	95.125	105.209	17 9 11	
17 3 17.5	101.242	98.979	17 4 57.0		$B=29^{in}.9$	$T=55^{\circ}.5$	17 7 2.0	95.127	105.193	17 8 41.5	
17 4 7.2 $\Delta t=-8.2$	″ $y=+11.238$ $\rho=+\ 0.009$ $\iota=+\ 0.015$			Star a b c	y +100″ ... + 5	x Mag. −20″ 10.4 .. 11.4 −90 11.3	17 7 51.8 $\Delta t=-8.2$	″ $x=+49.988$ $\rho=+\ 0.016$ $\iota=-\ 0.002$			Field taken at $17^{h}\ 12^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
17 3 59.0	$y_0=+11.262$			Eros n. f.		10.1	17 7 43.6	$x_0=+50.002$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
41.					1900 OCTOBER 18.						
h m s	r	r	h m s				h m s	r	r	h m s	
17 16 21	100.753	99.536	17 17 36	τ	$+4^{h}\ 30^{m}.9$	$+4^{h}\ 34^{m}.6$	17 19 23	94.285	106.080	17 21 6	After this measure was taken, focal reading changed to $2^{in}.51$.
	.739	.522		ζ	47°.7	48°.2		.261	.095		
	.757	.512		ρ′	+0″.004	+0″.018		.247	.113		
	.748	.521						.229	.127		
17 17 4	100.742	99.529	17 18 27	ρ″	+0″.004	0″.000	17 20 7	94.204	106 114	17 22 4	
17 16 42.5	100.748	99.524	17 18 1.5		$B=29^{in}.9$	$T=55°.0$	17 19 45.0	94.245	106.106	17 22 20.0	
	″			Star	y	x Mag.		″			
	y = + 6.078							x = +58.901			
17 17 22.0	ρ = + 0.008			b	...	... 11.4	17 21 2.5	ρ = + 0.018			Focal reading $2^{in}.49$.
Δt = −8.2	ι = + 0.019						Δt = −8.2	ι = − 0.002			Power 388.
											Seeing 3.
17 17 13.8	y_0 = + 6.105			Eros n. f.		....	17 20 54.3	x_0 = +58.917			Weight 3.
42.					OCTOBER 19.						
h m s	r	r	h m s				h m s	r	r	h m s	
6 20 48	105.706	93.433	6 22 41	τ	$-6^{h}\ 21^{m}.6$	$-6^{h}\ 17^{m}.2$	6 24 45	97.058	103.102	6 26 53	
	.717	.412		ζ	63°.8	63°.2	(14)	.029	.064		
	.725	.428		ρ′	−0″.075	−0″.016	42	.057	.075		
	.724	.439					(52)	.075	.052		
6 21 31	106.723	93.421	6 23 37	ρ″	+0″.016	+0″.032	6 26 3	97.084	103.004	6 28 9	
6 21 9.5	106.719	93.427	6 23 9.0		$B=30^{in}.0$	$T=51°.0$	6 25 31.2	97.061	103.059	6 27 31.0	
	″			Star	y	x Mag.		″			
	y = − 66.003			a	..	... 11.8		x = −29.783			Field taken at $6^{h}\ 19^{m}$.
6 22 9.2	ρ = − 0.059			b	− 20″	−200″ 10.5	6 26 31.1	ρ = + 0.016			Focal reading $2^{in}.51$.
Δt = −8.4	ι = − 0.050						Δt = −8.4	ι = + 0.105			Power 388.
											Seeing 3.
6 22 0.8	y_0 = − 66.112			Eros s. p.		10.1	6 26 22.7	x_0 = −29.662			Weight 3.
43.					OCTOBER 19.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 31 36	109.948	90.172	7 34 1	τ	$-5^{h}\ 10^{m}.0$	$-5^{h}\ 5^{m}.9$	7 36 11	97.744	102.707	7 37 49	
	.934	.182		ζ	53°.5	52°.9		.734	.749		
	.977	.190		ρ′	−0″.073	+0″.008		.735	.733		
	.967	.202						.712	.714		
7 32 29	109.965	90.221	7 34 51	ρ″	−0″.004	+0″.015	7 37 17	97.663	102.744	7 38 51	
7 32 2.5	109.958	90.193	7 34 26.0		$B=30^{in}.0$	$T=50°.0$	7 36 44.0	97.718	102.729	7 38 20.0	
	″			Star	y	x Mag.		″			
	y = − 98.146			a	...	... 11.7		x = +24.883			
7 33 25.5	ρ = − 0.077						7 37 32.0	ρ = + 0.023			Focal reading $2^{in}.51$.
Δt = −8.4	ι = + 0.028						Δt = −8.4	ι = + 0.126			Power 388.
											Seeing 2.
7 33 17.1	y_0 = − 98.195			Eros n. p.		....	7 37 23.6	x_0 = +25.032			Weight 2.
44.					OCTOBER 19.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 54 10	111.005	89.225	7 56 41	τ	$-4^{h}\ 47^{m}.5$	$-4^{h}\ 43^{m}.4$	7 58 42	95.962	104.465	8 0 28	
	.022	.248		ζ	50°.2	49°.5		.950	.483		
	.014	.232		ρ′	−0″.071	+0″.013		.946	.478		
	.024	.232						.939	.507		
7 55 8	111.032	89.209	7 57 31	ρ″	−0″.004	+0″.011	7 59 39	95.929	104.539	8 1 9	
7 54 39.0	111.019	89.229	7 57 6.0		$B=30^{in}.0$	$T=49°.0$	7 59 10.5	95.945	104.494	8 0 48.5	
	″			Star	y	x Mag.		″			
	y = −108.201			a	..	... 11.7		x = +42.452			Field taken at $8^{h}\ 2^{m}$.
7 55 52.5	ρ = − 0.075			b	− 25″	−240″ 10.3	7 59 59.5	ρ = + 0.024			Focal reading $2^{in}.51$.
Δt = −8.4	ι = + 0.046			c	− 20	+100 11.8	Δt = −8.4	ι = + 0.128			Power 388.
				d	− 90	+110 11.8					Seeing 3.
7 55 44.1	y_0 = −108.230			Eros n. p.		10.1	7 59 51.1	x_0 = +42.604			Weight 3.

45. 1900 October 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	*t′*		*A*	*D*	*t*	$\Delta\delta$	$\Delta\delta'$	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 14 45	100.405	99.742	16 16 21	τ	$+3^h\ 34^m.5$	$+3^h\ 38^m.3$	16 18 29	96.724	103.513	16 20 21	
	.381	.762		ζ	$38^\circ.9$	$39^\circ.5$		.705	.483		
	.403	.781		ρ'	$-0''.002$	$-0''.010$		.725	.506		
	.422	.783						.748	.448		
16 15 55	100.404	99.772	16 17 24	ρ''	$0''.000$	$0''.000$	16 19 35	96.798	103.468	16(21)20	
16 15 20.0	100.403	99.768	16 16 52.5		$B=30^{in}.1$	$T=38^\circ.0$	16 19 2.0	96.740	103.484	16 20 50.5	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=-3.153$			*a*	..	.. 10.8		$x=-33.488$			Field taken at $16^h\ 22^m$. Focal reading $2^{in}.51$. Power 388. Seeing 2. Weight 3.
16 16 6.2	$\rho=-0.002$			*b*	$+15''$	$-65''$ 11.8	16 19 56.2	$\rho=-0.010$			
$\Delta t=-8.6$	$\iota=-0.008$			*c*	$+80$	$+90$ 11.5	$\Delta t=-8.6$	$\iota=+0.001$			
16 15 57.6	$y_0=-3.163$			Eros s. p.		10.0	16 19 47.6	$x_0=-33.497$			

46. October 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	*t′*		*A*	*D*	*t*	$\Delta\delta$	$\Delta\delta'$	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
17 3 40	97.479	102.927	17 5 13	τ	$+4^h\ 23^m.4$	$+4^h\ 26^m.5$	17 6 59	100.375	100.049	17 8 9	
	.492	.940		ζ	$46^\circ.4$	$46^\circ.9$		.356	.054		
	.476	.951		ρ'	$-0''.016$	$0''.000$		.342	.070		
	.491	.977						.339	.092		
17 4 32	97.470	102.991	17 6 7	ρ''	$0''.000$	$-0''.002$	17 7 40	100.330	100.099	17 8 54	
17 4 6.0	97.482	102.957	17 5 40.0		$B=30^{in}.1$	$T=38^\circ.0$	17 7 19.5	100.348	100.073	17 8 31.5	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=-27.187$			*a*	...	... 10.4		$x=-1.365$			Focal reading $2^{in}.51$. Power 388. Seeing 2. Weight 3.
17 4 53.0	$\rho=-0.016$						17 7 55.5	$\rho=-0.002$			
$\Delta t=-8.6$	$\iota=-0.001$						$\Delta t=-8.6$	$\iota=+0.010$			
17 4 44.4	$y_0=-27.204$			Eros s. p.		....	17 7 46.9	$x_0=-1.357$			

47. October 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	*t′*		*A*	*D*	*t*	$\Delta\delta$	$\Delta\delta'$	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
17 20 41	96.508	103.554	17 22 28	τ	$+4^h\ 40^m.6$	$+4^h\ 44^m.0$	17 24 14	101.027	99.063	17 25 29	Coincidence readjusted to $100^r.030$ at $17^h\ 13^m$. Cold wind, seeing very blurred.
	.490	.570		ζ	$49^\circ.1$	$49^\circ.6$		.004	.051		
	.500	.604		ρ'	$-0''.023$	$+0''.003$		.016	.040		
	.478	.613						.031	.037		
17 21 43	96.402	103.621	17 23 14	ρ''	$+0''.001$	$-0''.004$	17 25 3	101.036	99.031	17 26 12	
17 21 12.0	96.476	103.592	17 22 51.0		$B=30^{in}.1$	$T=38^\circ.0$	17 24 38.5	101.023	99.044	17 25 50.5	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=-35.336$			*a*	..	... 10.4		$x=+9.827$			Field taken at $17^h\ 28^m$ Focal reading $2^{in}.51$. Power 388. Seeing 2. Weight 3.
17 22 1.5	$\rho=-0.022$			*b*	$+25''$	$-60''$ 11.8	17 25 24.5	$\rho=-0.001$			
$\Delta t=-8.6$	$\iota=+0.003$			*c*	-5	$+100$ 11.5	$\Delta t=-8.6$	$\iota=+0.014$			
17 21 52.9	$y_0=-35.355$			Eros n. p.		10.0	17 25 15.9	$x_0=+9.840$			

48. October 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	*t′*		*A*	*D*	*t*	$\Delta\delta$	$\Delta\delta'$	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 0 58	93.086	106.921	6 2 51	τ	$-6^h\ 36^m.4$	$-6^h\ 40^m.3$	5 56 31	109.887	90.470	5 59 16	After this measure was taken, focal reading changed to $2^{in}.49$.
	.121	.901		ζ	$65^\circ.6$	$66^\circ.1$		.789	.493		
	.097	.909		ρ'	$+0''.086$	$-0''.068$		.768	.464		
	.063	.891						.731	.480		
6 1 45	93.082	106.902	6 3 39	ρ''	$+0''.058$	$-0''.047$	5 57 57	109.700	90.488	5 59 59	
6 1 21.5	93.090	106.905	6 3 15.0		$B=30^{in}.1$	$T=49^\circ.5$	5 57 14.0	109.775	90.479	5 59 37.5	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=+68.601$			*a*	..	.. 11.0		$x=-95.817$			Field taken at $5^h\ 55^m$. Focal reading $2^{in}.51$. Power 388. Seeing 3. Weight 2.
6 2 18.2	$\rho=+0.144$			*b*	$+10''$	$-60''$ 11.9	5 58 25.8	$\rho=-0.115$			
$\Delta t=-8.9$	$\iota=-0.148$						$\Delta t=-8.9$	$\iota=-0.114$			
6 2 9.3	$y_0=+68.597$			Eros s. f.		10.0	5 58 16.9	$x_0=$ 96.046			

49. 1900 OCTOBER 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 0 26	101.269	98.823	8 1 54	τ	$-4^{h}\ 36^{m}.6$	$-4^{h}\ 33^{m}.8$	8 3 34	99.772	100.243	8 4 34	
	.243	.881		ζ	48°.5	48°.0		.796	.250		
	.253	.900		ρ'	+0″.007	−0″.001		.793	.265		
	.252	.912						.805	.226		
8 1 20	101.246	98.902	8 2 50	ρ''	0″.000	−0″.001	8 4 16	99.800	100.235	8 5 23	
8 0 53.0	101.253	98.884	8 2 22.0		$B=30^{in}.1$	$T=46°.0$	8 3 55.0	99.793	100.244	8 4 58.5	
	″			*Star*	y x	*Mag.*		″			
	$y=+11.764$			a	... ...	11.3		$x=-2.240$			Focal reading $2^{in}.49$. Power 388. Seeing 4. Weight 4.
8 1 37.5	$\rho=+0.007$						8 4 26.8	$\rho=-0.002$			
$\Delta t=-8.9$	$\iota=-0.005$						$\Delta t=-8.9$	$\iota=-0.011$			
8 1 28.6	$y_0=+11.766$			Eros s. f.		....	8 4 17.9	$x_0=-2.253$			

50. OCTOBER 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 10 36	100.837	99.362	8 12 20	τ	$-9^{h}\ 26^{m}.3$	$-4^{h}\ 23^{m}.0$	8 13 50	99.567	100.653	8 15 36	Eros examined for disc with power 888; it does not seem to be a point, but can not recognize disc with certainty; yet I feel satisfied that the apparent disc is not wholly spurious.
	.788	.403		ζ	46°.9	46°.3		.578	.672		
	.760	.421		ρ'	+0″.004	+0″.002		.593	.681		
	.757	.439						.512	.729		
8 11 42	100.728	99.448	8 13 6	ρ''	0″.000	0″.000	8 14 51	99.458	100.730	8 16 24	
8 11 9.0	100.754	99.415	8 12 43.0		$B=30^{in}.1$	$T=46°.0$	8 14 20.5	99.542	100.693	8 16 0.0	
	″			*Star*	y x	*Mag.*		″			
	$y=+6.649$			a	... ...	11.3		$x=+5.716$			Focal reading $2^{in}.49$. Power 388. Seeing 4. Weight 4.
8 11 56.0	$\rho=+0.004$						8 15 10.2	$\rho=+0.002$			
$\Delta t=-8.9$	$\iota=+0.004$						$\Delta t=-8.9$	$\iota=-0.004$			
8 11 47.1	$y_0=+6.657$			Eros n. f.		....	8 15 1.3	$x_0=+5.714$			

51. OCTOBER 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 28 25	100.183	99.879	8 29 25	τ	$4^{h}\ 8^{m}.9$	$-4^{h}\ 6^{m}.2$	8 31 5	98.317	101.928	8 32 12	
	.197	.859		ζ	44°.2	43°.8		.300	.940		
	.200	.833		ρ'	−0″.001	+0″.005		.289	.950		
	.204	.809						.281	.953		
8 29 5	100.212	99.805	8 30 12	ρ''	−0″.001	0″.000	8 31 48	98.257	101.961	8 32 48	
8 28 45.0	100.199	99.837	8 29 48.5		$B=30^{in}.1$	$T=46°.0$	8 31 26.5	98.289	101.946	8 32 30.0	
	″			*Star*	y x	*Mag.*		″			
	$y=-1.798$			a	... ...	11.3		$x=+18.161$			Field taken at $8^{h}\ 35^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 4. Weight 4.
8 29 16.8	$\rho=-0.002$			b	+30″ −75″	11.5	8 31 58.2	$\rho=+0.005$			
$\Delta t=-8.9$	$\iota=+0.016$			c	0 +150	10.1	$\Delta t=-8.9$	$\iota=+0.004$			
8 29 7.9	$y_0=-1.784$			Eros n. p.		10.0	8 31 49.3	$x_0=+18.170$			

52. OCTOBER 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 21 23	103.707	96.683	16 24 42	τ	$+3^{h}\ 47^{m}.4$	$+3^{h}\ 53^{m}.7$	16 27 10	97.593	102.383	16 30 39	
50	.701	.651		ζ	40°.9	41°.8	29 36	.768	.401		
22 12	.726	.642		ρ'	+0″.017	−0″.007	49	.757	.388		
23 19	.520	.671					1	.764	.347		
16 23 51	103.446	96.683	16 25 45	ρ''	+0″.001	+0″.001	16 30 12	97.772	102.312	16 31 26	
16 22 31.0	103.620	96.666	16 25 13.5		$B=30^{in}.1$	$T=41°.0$	16 29 21.6	97.731	102.366	16 31 2.5	
	″			*Star*	y x	*Mag.*		″			
	$y=+34.533$			a	... ...	11.8		$x=-23.017$			Field taken at $16^{h}\ 20^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
16 23 52.2	$\rho=+0.018$			b	+45″ −40″	11.8	16 30 11.5	$\rho=-0.006$			
$\Delta t=-9.2$	$\iota=-0.007$			c	−10 −75	11.8	$\Delta t=-9.2$	$\iota=-0.007$			
16 23 43.0	$y_0=+34.544$			Eros s. f.		10.0	16 30 2.3	$x_0=-23.030$			

53.

1900 October 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
17 5 36	101.309	98.978	17 7 20	τ	$+4^h\,30^m.8$	$+4^h\,35^m.0$		17 9 48	99.844	100.465	17 11 37	
(54)	.279	.960	52	ζ	47°.5	48°.2			.838	.418	58	
(13)	.256	.989	14					32	.857	.411	(14)	
31	.248	98.999	(26)	ρ'	+0″.007	+0″.001			.848	.460	(29)	
17 6 41	101.241	99.022	17 8 39	ρ''	0″.000	+0″.001		17 11 2	99.823	100.448	17 12 45	
17 6 11.0	101.267	98.990	17 8 6.3	$B=30^{in}.1$		$T=40^\circ.0$		17 10 27.3	99.842	100.450	17 12 12.6	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = +11.308$			*a*	..	..	11.7		$x = +3.019$			Field taken at $17^h\,15^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
17 7 8.6	$\rho = +0.007$			*b*	−55″	−55″	11.6	17 11 20.0	$\rho = +0.002$			
$\Delta t = -9.2$	$\iota = 0.000$			*c*	−10	−80	11.6	$\Delta t = -9.2$	$\iota = -0.003$			
17 6 59 4	$y_0 = +11.315$			Eros n. f.			10.0	17 11 10.8	$x_0 = +3.018$			

54.

October 21.

h m s	r	r	h m s					h m s	r	r	h m s	
6 37 31	100.600	99.680	6 39 6	τ	$-5^h\,54^m.7$	$-5^h\,51^m.6$		6 40 42	98.072	102.090	6 42 12	Very hazy.
	.618	.655		ζ	59°.8	59°.3			.084	.120		
	.602	.672							.062	.129		
	.596	.667		ρ'	+0″.004	+0″.008			.076	149		
6 38 26	100.587	99.650	6 39 56	ρ''	−0″.006	−0″.001		6 41 34	98.084	102.139	6 42 56	
6 37 58.5	100.601	99.665	6 39 31.0	$B=30^{in}.0$		$T=58^\circ.0$		6 41 8.0	98.076	102.125	6 42 34.0	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = +4.649$			*a*	...	..	11.5		$x = +20.107$			Field taken at $6^h\,35^m$. Focal reading $2^{in}.49$. Power 388. Seeing 1-2. Weight 2.
6 38 44.8	$\rho = -0.002$			*b*	−120″	−40″	11.8	6 41 51.0	$\rho = +0.007$			
$\Delta t = -9.5$	$\iota = +0.026$							$\Delta t = -9.5$	$\iota = 0.003$			
6 38 35.3	$y_0 = +4.673$			Eros. n. f.			10.0	6 41 41.5	$x_0 = +20.111$			

55.

October 21.

h m s	r	r	h m s					h m s	r	r	h m s	
6 51 30	100.199	99.900	6 52 40	τ	$-5^h\,40^m.9$	$-5^h\,37^m.9$		6 54 8	97.047	103.114	6 55 45	
	.224	.913		ζ	57°.8	57°.4		37	.120	.139		
	.215	.895						(48)	.101	.151		
	.218	.887		ρ'	−0″.001	+0″.011		(58)	.078	.164		
6 52 15	100.242	99.878	6 53 20	ρ''	−0″.007	+0″.001		55 9	97.084	103.182	6 56 33	
6 51 52.5	100.220	99.895	6 53 0.0	$B=30^{in}.0$		$T=58^\circ.0$		6 54 44.0	97.086	103.150	6 56 9.0	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -1.614$			*a*	...	...	11.5		$x = +30.114$			Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
6 52 26.2	$\rho = -0.008$							6 55 26.5	$\rho = +0.012$			
$\Delta t = -9.5$	$\iota = +0.039$							$\Delta t = -9.5$	$\iota = +0.006$			
6 52 16.7	$y_0 = -1.583$			Eros n. p.			....	6 55 17.0	$x_0 = +30.132$			

56.

October 21.

h m s	r	r	h m s					h m s	r	r	h m s	
8 6 0	104.106	96.035	8 7 29	τ	$-4^h\,25^m.9$	$-4^h\,22^m.3$		8 9 39	91.745	108.645	8 11 13	Seeing very much improved, haze cleared away.
	.106	.000		ζ	46°.7	46°.2			.736	.642		
	.114	96.009	8						.730	.653		
	.108	95.999		ρ'	−0″.023	+0″.024			.719	.660		
8 6 43	104.114	95.983	8 8 38	ρ''	−0″.005	+0″.002		8 10 20	91.696	108.672	8 11 53	
8 6 21.5	104.110	96.005	8 8 5.0	$B=30^{in}.0$		$T=57^\circ.0$		8 9 59.5	91.725	108.654	8 11 33.0	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -40.249$			*a*	...	...	11.3		$x = +84.069$			Field taken at $8^h\,15^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 2.
8 7 13.2	$\rho = -0.028$			*b*	−120″	−40″	11.8	8 10 46.2	$\rho = +0.026$			
$\Delta t = -9.5$	$\iota = +0.088$			*c*	−90	+130	11.6	$\Delta t = -9.5$	$\iota = +0.046$			
8 7 3.7	$y_0 = -40.189$			Eros n. p.			9.8	8 10 36.7	$x_0 = +84.141$			

57.					1900 October 22.						
t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 17 30	105.448	94.863	6 19 30	τ	$-6^h\,9^m.2$	$-6^h\,5^m.9$	6 21 7	94.139	106.064	6 22 37	
	.469	.829		ζ	61°.7	61°.2		.120	.108		
	.455	.893						.112	.109		
	.382	.904		ρ'	$+0''.052$	$+0''.027$		.108	.162		
6 18 43	105.390	94.917	6 20 17	ρ''	$-0''.022$	$-0''.018$	6 21 51	94.103	106.194	6 23 43	
6 18 6.5	105.429	94.881	6 19 53.5		$B=30^{in}.0$	$T=70°.0$	6 21 29.0	94.116	106.127	6 23 10.0	
6 19 0.0 $\Delta t=-10.1$	″ $y=+52.380$ $\rho=+0.030$ $\iota=+0.086$			*Star* *a*	*y* ...	*x* *Mag.* ... 11.4	6 22 19.5 $\Delta t=-10.1$	″ $x=+59.646$ $\rho=+0.009$ $\iota=-0.074$			Focal reading 2^{in} 49. Power 388. Seeing 3. Weight 3.
6 18 49.9	$y_0=+52.496$			Eros n. f.		9.8	6 22 9.4	$x_0=+59.581$			
58.					October 22.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 18 45	102.133	98.133	7 20 17	τ	$-5^h\,8^m.0$	$-5^h\,4^m.2$	7 22 25	89.828	110.544	7 24 17	
	.121	.129		ζ	53°.0	52°.4		.862	.514		
	.128	.083						.815	.518		
	.114	.114		ρ'	$+0''.014$	$+0''.032$		.801	.480		
7 19 43	102.100	98.119	7 21 15	ρ''	$-0''.014$	$-0''.002$	7 23 15	89.786	110.534	7 25 5	
7 19 14.0	102.119	98.116	7 20 46.0		$B=30^{in}.0$	$T=68°.0$	7 22 50.0	89.818	110.518	7 24 41.0	
7 20 0.0 $\Delta t=-10.1$	″ $y=+19.878$ $\rho=\ \ 0.000$ $\iota=+0.126$			*Star* *a*	*y* ...	*x* *Mag.* ... 11.4	7 23 45.5 $\Delta t=-10.1$	″ $x=+102.795$ $\rho=+0.030$ $\iota=-0.020$			Focal reading 2^{in}.49. Power 388. Seeing 3. Weight 2.
7 19 49.9	$y_0=+20.004$			Eros n. f.		9.8	7 23 35.4	$x_0=+102.805$			
59.					October 24.						
h m s	r	r	h m s				h m s	r	r	h m s	
6 28 49	101.281	98.853	6 30 10	τ	$-5^h\,47^m.6$	$-5^h\,44^m.0$	6 32 10	96.391	103.648	6 33 53	
	.292	.834		ζ	58°.0	58°.0		.413	.659		
	.300	.821						.488	.654		
	.316	.795		ρ'	$-0''.011$	$+0''.014$		.464	.627		
6 29 34	101.328	98.841	6 31 6	ρ''	$+0''.010$	$+0''.004$	6 32 58	96.504	103.612	6 34 45	
6 29 11.5	101.303	98.829	6 30 38.0		$B=30^{in}.2$	$T=69°.0$	6 32 34.0	96.452	103.640	6 34 19.0	
6 29 54.8 $\Delta t=-11.2$	″ $y=-12.286$ $\rho=-0.001$ $\iota=-0.054$			*Star* *a* *b*	*y* .. +20″	*x* *Mag.* ... 11.2 −100″ 11.1	6 33 26.5 $\Delta t=-11.2$	″ $x=-35.695$ $\rho=+0.018$ $\iota=+0.022$			Field taken at $6^h\,27^m$. Focal reading 2^{in}.49. Power 388. Seeing 3. Weight 3.
6 29 43.6	$y_0=-12.341$			Eros s. p.		9.8	6 33 15.3	$x_0=--35.655$			
60.					October 24.						
h m s	r	r	h m s				h m s	r	r	h m s	Micrometer head turns with considerable resistance, and after this measure seemed to slip on the axis. The coincidence was noticed to be $100^r.120$ approximately. It was then readjusted to $100^r.051$ and the head tied with a waxed string to prevent any recurrence of the slipping.
6 36 42	104.353	95.734	6 38 9	τ	$-5^h\,39^m.7$	$-5^h\,36^m.5$	6 39 43	95.278	105.076	6 41 16	
	.367	.722		ζ	57°.4	56°.9		.202	.077		
	.397	.703						.240	.064		
	.413	.714		ρ'	$-0''.036$	$+0''.018$		.249	.040		
6 37 28	104.403	95.688	6 38 53	ρ''	$-0''.011$	$+0''.010$	6 40 28	95.228	105.126	6 42 28	
6 37 5.0	104.387	95.712	6 38 31.0		$B=30^{in}.2$	$T=70°.0$	6 40 5.5	95.239	105.077	6 41 52.0	
6 37 48.0 $\Delta t=-11.2$	″ $y=-43.079$ $\rho=-0.047$ $\iota=+0.066$			*Star* *b*	*y* ...	*x* *Mag.* ... 11.1	6 40 58.8 $\Delta t=-11.2$	″ $x=+48.855$ $\rho=+0.028$ $\iota=+0.064$			Focal reading 2^{in}.49. Power 388. Seeing 3. Weight 3.
6 37 36.8	$y_0=-43.060$			Eros n. p.		....	6 40 47.6	$x_0=+48.947$			

61. 1900 OCTOBER 24.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 31 28	91.458	108.670	8 33 39	τ	$-3^h\ 44^m.0$	$-3^h\ 40^m.1$	8 35 48	104.404	95.650	8 37 13	
	.483	.636		ζ	$40^\circ.3$	$39^\circ.7$		.385	.635		
	.469	.621		ρ'	$-0''.040$	$+0''.012$		.410	.623		
	.459	.731						.423	.598		
8 32 23	91.448	108.749	8 34 27	ρ''	$0''.000$	$+0''.001$	8 36 26	104.419	95.586	8 38 14	
8 31 55.5	91.463	108.681	8 34 3.0		$B=30^{in}.2$	$T=67^\circ.0$	8 36 7.0	104.408	95.618	8 37 43.5	
8 32 59.2 $\Delta t=-11.2$	″ $y=-85.503$ $\rho=-0.040$ $\iota=+0.037$			*Star* *a* *b*	*y* .. $+40''$	*x* *Mag.* .. 11.4 $-80''$ 11.3	8 36 55.2 $\Delta t=-11.2$	″ $x=+43.650$ $\rho=+0.013$ $\iota=+0.079$			Field taken at $8^h\,40^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
8 32 48.0	$y_0=-85.506$			Eros n. p.		9.8	8 36 44.0	$x_0=+43.742$			

62. OCTOBER 24.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 36 13	97.133	103.075	16 38 18	τ	$+4^h\ 22^m.7$	$+4^h\ 27^m.7$	16 41 42	106.152	94.104	16 43 34	
	.117	.099		ζ	$46^\circ.1$	$46^\circ.9$		.161	.096		
	.109	.133		ρ'	$-0''.017$	$-0''.017$		.124	.092		
	.118	.107						.109	.064		
16 37 19	97.108	103.119	16 39 44	ρ''	$-0''.003$	$-0''.002$	16 42 32	106.086	94.072	16 44 50	
16 36 46.0	97.117	103.107	16 39 1.0		$B=30^{in}.2$	$T=57^\circ.0$	16 42 7.0	106.126	94.086	16 44 12.0	
16 37 53.5 $\Delta t=-11.5$	″ $y=-29.746$ $\rho=-0.020$ $\iota=-0.017$			*Star* *a* *b* *c*	*y* .. $+75''$ -65	*x* *Mag.* ... 11.3 $+30''$ 11.1 -120 11.7	16 42 54.5 $\Delta t=-11.5$	″ $x=-59.790$ $\rho=-0.019$ $\iota=+0.010$			Field taken at $16^h\,35^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
16 37 42.0	$y_0=-29.783$			Eros s. p.		9.8	16 42 43.0	$x_0=-59.799$			

63. OCTOBER 24.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
17 16 31	94.735	105.556	17 18 41	τ	$+5^h\ 4^m.2$	$+5^h\ 10^m.5$	17 24 16	103.921	96.227	17 26 0	* Electric lights went out.
	.742	.630	* 21 52	ζ	$52^\circ.2$	$53^\circ.2$		.908	.252		
	.725	.668	(7)					.881	.253		
	.700	.698	(23)	ρ'	$-0''.038$	$-0''.012$		.907	.272		
17 17 32	94.688	105.712	17 22 38	ρ''	$-0''.005$	$-0''.009$	17 25 7	103.894	96.274	17 26 47	
17 17 1.5	94.718	105.653	17 21 32.2		$B=30^{in}.2$	$T=57^\circ.0$	17 24 41.5	103.902	96.256	17 26 23.5	
17 19 16.8 $\Delta t=-11.5$	″ $y=-54.303$ $\rho=-0.043$ $\iota=-0.017$			*Star* *a* *b* *c*	*y* .. $+55''$ -45	*x* *Mag.* ... 11.4 $+40''$ 11.2 -135 11.8	17 25 32.5 $\Delta t=-11.5$	″ $x=-37.970$ $\rho=-0.021$ $\iota=+0.025$			Field taken at $17^h\,30^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
17 19 5.3	$y_0=-54.363$			Eros s. p.		....	17 25 21.0	$x_0=-37.966$			

64. OCTOBER 26.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 38 13	102.112	97.941	8 39 28	τ	$-3^h\ 26^m.8$	$-3^h\ 23^m.5$	8 41 23	94.808	105.207	8 42 45	Clouding over at $8^h\,40^m$.
	.108	.961		ζ	$37^\circ.6$	$37^\circ.2$		.798	.218		
	.102	.982						.838	.222		
	.091	97.990		ρ'	$+0''.009$	$-0''.014$		.854	.214		
8 38 56	102.094	98.003	8 40 24	ρ''	$0''.000$	$0''.000$	8 42 7	94.873	105.150	8 43 37	
8 38 34.5	102.101	97.975	8 39 56.0		$B=30^{in}.1$	$T=60^\circ.0$	8 41 45.0	94.834	105.202	8 43 11.0	
8 39 15.2 $\Delta t=-12.5$	″ $y=+20.490$ $\rho=+0.009$ $\iota=-0.045$			*Star* *a* *b*	*y* .. $+5''$	*x* *Mag.* .. 11.0 $+90''$ 11.8	8 42 28.0 $\Delta t=-12.5$	″ $x=-51.487$ $\rho=-0.014$ $\iota=-0.015$			Field taken at $8^h\,44^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
8 39 2.7	$y_0=+20.454$			Eros s. f.		9.7	8 42 15.5	$x_0=-51.516$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
65.					1900 OCTOBER 27.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 27 18	106.637	93.589	6 29 3	τ	$-5^h\ 32^m.4$	$-5^h 29^m.2$		6 30 31	92.733	107.375	6 32 9	
	.604	.652		ζ	56°.1	55°.6		1	.753	.367		
	.582	.632		ρ'	$+0''.052$	$+0''.025$		(9)	.770	.378		
	.597	.618						(16)	.782	.387		
6 28 11	106.561	93.633	6 29 51	ρ''	$-0''.015$	$-0''.012$		6 31 24	92 775	107.393	6 32 50	
6 27 44.5	106.596	93.625	6 29 27.0		$B=30^{in}.0$	$T=62^\circ.0$		6 31 4.2	92.763	107.380	6 32 29.5	
	″			Star	y	x	Mag.		″			
	$y=+64.413$			a	...	..	11.4		$x=+72.587$			Field taken at $6^h\ 25^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
6 28 35.8	$\rho=+\ 0.037$			b	+100″	+30″	12.0	6 31 46.8	$\rho=+\ 0.013$			
$\Delta t=-13.1$	$\iota=+\ 0.102$							$\Delta t=-13.1$	$\iota=-\ 0.083$			
6 28 22.7	$y_0=+64.552$			Eros n. f.			9.7	6 31 33.7	$x_0=+72.517$			
66.					OCTOBER 27.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 34 22	104.384	95.561	6 35 48	τ	$-5^h\ 25^m.4$	$-5^h\ 22^m.4$		6 37 26	96.417	103.717	6 38 47	
(35)	.395	.570		ζ	55°.1	54°.7			.427	.761		
(48)	.402	.551		ρ'	$-0''.034$	$+0''.012$			.432	.749		
1	.408	.539							.441	.763		
6 35 11	104.393	95.508	6 36 38	ρ''	$-0''.006$	$+0''.008$		6 38 10	96.422	103.787	6 39 36	
6 34 47.4	104.396	95.546	6 36 14.0		$B=30^{in}.0$	$T=62^\circ.0$		6 37 48.0	96.428	103.755	6 39 11.5	
	″			Star	y	x	Mag.		″			
	$y=-43.949$								$x=+36.385$			Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
6 35 30.7	$\rho=-\ 0.040$			b	...	...	12.0	6 38 29.8	$\rho=+\ 0.020$			
$\Delta t=-13.1$	$\iota=+\ 0.041$							$\Delta t=-13.1$	$\iota=+\ 0.063$			
6 35 17.6	$y_0=-43.948$			Eros n. p.			....	6 38 16.7	$x_0=+36.468$			
67.					OCTOBER 27.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 58 15	100.530	99.570	7 59 48	τ	$-4^h\ 1^m.1$	$-3^h\ 57^m.1$		8 1 55	87.705	112.460	8 4 8	
	.516	.588		ζ	42°.8	42°.2			.718	.453		
	.531	.607		ρ'	$+0''.002$	$+0''.034$			.729	.487		
	.540	.621							.707	.484		
7 59 8	100.533	99.631	8 0 48	ρ''	$-0''.003$	$0''.000$		8 3 4	87.693	112.494	8 4 45	
7 58 41.5	100.530	99.603	8 0 18.0		$B=30^{in}.0$	$T=62^\circ.0$		8 2 29.5	87.710	112.476	8 4 26.5	
	″			Star	y	x	Mag.		″			
	$y=+4.604$			a	...	..	11.3		$x=+122.987$			Field taken at $8^h\ 8^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
7 59 29.8	$\rho=-0.001$			b	+100″	+15″	11.9	8 3 28.0	$\rho=+\ 0.034$			
$\Delta t=-13.1$	$\iota=+0.119$							$\Delta t=-13.1$	$\iota=\ 0.000$			
7 59 16.7	$y_0=+4.722$			Eros n. f.			9.7	8 3 14.9	$x_0=+123.021$			
68.					OCTOBER 29.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 24 5	96.588	103.564	6 25 44	τ	$-5^h\ 24^m.3$	$-5^h\ 20^m.9$		6 27 32	102.942	97.000	6 29 1	
	.571	.587		ζ	54°.8	54°.2			102.985	96.986		
	.560	.607		ρ'	$-0''.027$	$+0''.010$			103.032	.979		
	.490	.641							.009	96.990		
6 25 1	96.481	103.630	6 26 29	ρ''	$-0''.005$	$+0''.007$		6 28 25	103.027	97.004	6 29 55	
6 24 33.0	96.538	103.606	6 26 6.5		$B=29^{in}.9$	$T=58^\circ.0$		6 27 58.5	102.999	96.992	6 29 28.0	
	″			Star	y	x	Mag.		″			
	$y=-35.100$			a	..	..	11.6		$x=+29.831$			Field taken at $6^h\ 22^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
6 25 19.8	$\rho=-\ 0.032$			b	−80″	−60″	11.9	6 28 43.2	$\rho=+\ 0.017$			
$\Delta t=-14.5$	$\iota=+\ 0.038$							$\Delta t=-14.5$	$\iota=+\ 0.052$			
6 25 5.3	$y_0=-35.094$			Eros n. p.			9.6	6 28 28.7	$x_0=+29.900$			

t	*Δα* cos *δ*	*Δα′* cos *δ*	*t′*		*A*	*D*	*t*	*Δδ*	*Δδ′*	*t′*	Remarks.
69.					1900 OCTOBER 29.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 12 14	93.152	106.990	7 14 19	*τ*	$-4^h\ 35^m.6$	$-4^h\ 32^m.2$	7 16 4	105.351	94.735	7 17 38	
43	.122	107.005		*ζ*	47°.8	47°.3		.339	.718		
(56)	.131	.038		*ρ′*	−0″.042	+0″.015		.344	.722		
(8)	.124	.043						.351	.707		
7 13 21	93.105	107.058	7 15 14	*ρ″*	−0″.003	+0″.004	7 16 52	105.368	94.700	7 18 13	
7 12 52.4	93.127	107.027	7 14 46.5		$B=29^{in}.9$	$T=57°.0$	7 16 28.0	105.351	94.716	7 17 55.5	
7 13 49.4 *Δt*=−14.5	″ *y* =−69.027 *ρ* =− 0.045 *ι* =+ 0.059			*Star* *a*	*y* ...	*x* *Mag.* ... 11.6	7 17 11.8 *Δt*=−14.5	″ *x* =+52.813 *ρ* =+ 0.019 *ι* =+ 0.082			Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
7 13 34.9	$y_0=-69.013$			Eros n. p.		....	7 16 57.3	$x_0=+52.914$			
70.					OCTOBER 29.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 31 6	93.208	106.757	7 33 13	*τ*	$-4^h\ 16^m.6$	$-4^h\ 12^m.5$	7 35 41	102.227	97.896	7 37 11	
	.221	.652	45	*ζ*	45°.0	44°.4		.242	.901	28	
	.252	.668	(58)	*ρ′*	+0″.037	−0″.006		.251	.923	38	
	.276	.650	(11)					.255	.931	47	
7 32 4	93.258	106.645	7 34 24	*ρ″*	+0″.001	−0″.002	7 36 33	102.243	97.935	7 37 58	
7 31 35.0	93.243	106.674	7 33 54.2		$B=29^{in}.9$	$T=57°.0$	7 36 7.0	102.244	97.917	7 37 36.4	
7 32 44.6 *Δt*=−14.5	″ *y* =+66.698 *ρ* =+ 0.038 *ι* =− 0.025			*Star* *a* *b* *c*	*y* +150″ + 45 ...	*x* *Mag.* −120″ 11.4 −195 11.8 ... 12.0	7 36 51.7 *Δt*=−14.5	″ *x* =−21.488 *ρ* =− 0.008 *ι* =− 0.064			Field taken at 7h 30m. Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
7 32 30.1	$y_0=+66.711$			Eros s. f.		....	7 36 37.2	$x_0=-21.560$			
71.					OCTOBER 29.						
h m s	r	r	h m s				h m s	r	r	h m s	
16 12 46	94.401	105.388	16 15 6	*τ*	$+4^h\ 27^m.3$	$+4^h\ 31^m.5$	16 17 23	102.878	97.304	16 19 2	
(6)	.388	.439		*ζ*	46°.6	47°.2		.859	.324		
(25)	.393	.443		*ρ′*	+0″.032	−0″.008		.857	.321		
45	.413	.448						.855	.339		
16 14 3	94.396	105.397	16 16 22	*ρ″*	−0″.002	+0″.003	16 18 23	102.839	97.342	16 19 59	
16 13 25.0	94.398	105.423	16 15 44.0		$B=29^{in}.9$	$T=48°.0$	16 17 53.0	102.858	97.326	16 19 30.5	
16 14 34.5 *Δt*= -14.8	″ *y* =+54.749 *ρ* =+ 0.030 *ι* =− 0.008			*Star* *a* *b*	*y* ... +160″	*x* *Mag.* .. 10.5 − 5″ 10.5	16 18 41.8 *Δt*=−14.8	″ *x* =−27.472 *ρ* = - 0.005 *ι* = - 0.014			Field taken at 16h 12m. Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
16 14 19.7	$y_0=+54.771$			Eros s. f.		9.7	16 18 27.0	$x_0=-27.491$			
72.					OCTOBER 29.						
h m s	r	r	h m s				h m s	r	r	h m s	
17 0 18	97.748	102.162	17 2 4	*τ*	$+5^h\ 14^m.6$	$+5^h\ 17^m.9$	17 4 1	101.182	98.975	17 5 6	Parallel of micrometer checked on equatorial stars at 17h 51m.
	.799	.159		*ζ*	53°.4	53°.9		.177	.987		
	.806	.168		*ρ′*	+0″.016	−0″.004		.173	98.994		
	.791	.172						.175	99.001		
17 1 12	97.782	102.172	17 2 59	*ρ″*	−0″.002	+0″.003	17 4 39	101.170	99.002	17 6 4	
17 0 45.0	97.785	102.167	17 2 31.5		$B=29^{in}.9$	$T=48°.0$	17 4 20.0	101.175	98.992	17 5 35.0	
17 1 38.2 *Δt*= 14.8	″ *y* =+21.761 *ρ* =+ 0.014 *ι* =− 0.005			*Star* *a*	*y* ...	*x* *Mag.* ... 10.4	17 4 57.5 *Δt*= 14.8	″ *x* =−10.841 *ρ* = - 0.001 *ι* = 0.007			Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
17 1 23.4	$y_0=+21.770$			Eros s. f.		....	17 4 42.7	$x_0=-10.849$			

73.

1900 OCTOBER 29.

t	Δα cos δ	Δα′cos δ	t′		A	D		t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
17 16 5	98.839	101.159	17 17 17	τ	$+5^h\ 30^m.0$	$+5^h\ 33^m.0$		17 19 3	100.660	99.527	17 20 9	
	.852	.142		ζ	55°.6	56°.0			.654	.548		
	.852	.152		ρ′	+0″.009	−0″.002			.652	.553		
	.867	.158							.648	.558		
17 16 47	98.871	101.165	17 18 4	ρ″	−0″.001	+0″.002		17 19 44	100.655	99.567	17 20 53	
17 16 26.0	98.856	101.155	17 17 40.5		$B=29^{in}.9$	$T=48°.0$		17 19 23.5	100.654	99.551	17 20 31.0	
	″			Star	y	x	Mag.		″			
	y = +11.417			a	...	..	10.4		x = −5.478			Field taken at $17^h\ 22^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
17 17 3.2	ρ = + 0.008			b	+150″	−60″	10.6	17 19 57.2	ρ = 0.000			
Δt = −14.8	ι = − 0.003							Δt = −14.8	ι = −0.004			
17 16 48.4	y_0 = +11.422			Eros s. f.			9.6	17 19 42.4	x_0 = −5.482			

74.

OCTOBER 30.

h m s	r	r	h m s					h m s	r	r	h m s	Clouds prevented earlier measures being taken.
7 19 53	107.313	92.916	7 21 55	τ	$-4^h\ 22^m.2$	$-4^h\ 17^m.3$		7 24 8	80.872	119.082	7 27 9	
(14)	.322	92.967	18	ζ	45°.7	45°.0		30	.859	.087	31	
34	.203	93.032	36	ρ′	+0″.039	−0″.053		44	.887	.044	55	
(45)	.143	.039	47					57	80.904	.043	5	
7 20 56	107.130	93.060	7 22 57	ρ″	+0″.009	−0″.003		7 25 25	81.008	119.026	7 28 22	
7 20 28.4	107.222	93.003	7 22 30.6		$B=30^{in}.0$	$T=63°.0$		7 24 44.8	80.906	119.056	7 27 48.4	
	″			Star	y	x	Mag.		″			
	y = +70.610			a	+90″	−135″	11.2		x = −189.451			Field taken at $7^h\ 18^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 2.
7 21 29.5	ρ = + 0.048			b	...	...	10.0	7 26 16.6	ρ = − 0.056			
Δt = −15.2	ι = − 0.206							Δt = −15.2	ι = − 0.068			
7 21 14.3	y_0 = +70.452			Eros s. f.			9.7	7 26 1.4	x_0 = −189.575			

75.

OCTOBER 30.

h m s	r	r	h m s					h m s	r	r	h m s	
7 29 42	101.701	98.118	7 31 7	τ	$-4^h\ 12^m.7$	$-4^h\ 9^m.5$		7 32 54	98.429	101.751	7 34 23	
3	.802	.111	26	ζ	44°.3	43°.9		9	.439	.776	36	
16	.798	.123	38	ρ′	−0″.010	+0″.005		32	.402	.790	47	
27	.835	.104	55					47	.383	.793	57	
7 30 37	101.834	98.169	7 32 6	ρ″	−0″.001	+0″.001		7 33 57	98.377	101.800	7 35 5	
7 30 13.0	101.794	98.125	7 31 38.4		$B=30^{in}.0$	$T=63°.0$		7 33 27.8	98.406	101.782	7 34 45.6	
	″			Star	y	x	Mag.		″			
	y = −18.220			a	...	...	11.2		x = +16.766			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
7 30 55.7	ρ = − 0.011							7 34 6.7	ρ = + 0.006			
Δt = −15.2	ι = + 0.016							Δt = −15.2	ι = + 0.022			
7 30 40.5	y_0 = −18.215			Eros n. p.			....	7 33 51.5	x_0 = +16.794			

76.

OCTOBER 30.

h m s	r	r	h m s					h m s	r	r	h m s	
8 9 46	103.622	96.526	8 11 17	τ	$-3^h\ 32^m.4$	$-3^h\ 27^m.8$		8 13 47	83.094	116.950	8 16 17	
59	.616	.545	40	ζ	38°.5	37°.8		4	.103	.922	43	
19	.511	.578	50	ρ′	+0″.016	−0″.046		16	.114	.897	59	
29	.498	.625	5					29	.111	.892	9	
8 10 38	103.497	96.671	8 12 25	ρ″	0″.000	0″.000		8 14 44	83.132	116.846	8 17 25	
8 10 14.2	103.549	96.589	8 11 51.4		$B=30^{in}.0$	$T=62°.0$		8 14 16.0	83.111	116.902	8 16 54.6	
	″			Star	y	x	Mag.		″			
	y = +34.563			a	+70″	−210″	11.4		x = −167.805			Field taken at $8^h\ 19^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 2.
8 11 2.8	ρ = + 0.016			b	...	...	10.0	8 15 35.3	ρ = − 0.046			
Δt = −15.2	ι = − 0.145							Δt = −15.2	ι = − 0.025			
8 10 47.6	y_0 = +34.434			Eros s. f.			9.7	8 15 20.1	x_0 = −167.876			

t	Δα cos δ	Δα′ cos δ	t′		A	D		t	Δδ	Δδ′	t′	Remarks.
77.					1900 November 4.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 32 0	89.352	110.831	6 34 10	τ	$-4^h\ 40^m.9$	$-4^h\ 37^m.3$		6 36 1	103.113	96.993	6 37 30	Seeing very blurred, one of the worst nights of the year. Mr. Peters recording.
	.372	.843		ζ	48°.5	47°.9			.158	.987		
	.318	.851							.167	.969		
	.340	.883		ρ′	−0″.067	−0″.009			.170	.963		
6 32 58	89.328	110.907	6 34 56	ρ″	+0″.002	+0″.007		6 36 45	.180	96.970	6 38 18	
6 32 29.0	89.342	110.863	6 34 33.0		$B=29^{in}.9$	$T=51°.0$		6 36 23.0	103.158	96.976	6 37 54.0	
	″			Star	y	x	Mag.		″			
	$y = -106.872$			a	..	..	10.5		$x = -30.699$			Field taken at $6^h\ 30^m$. Focal reading $2^{in}.49$. Power 388. Seeing 1. Weight 1.
6 33 31.0	$\rho = -\ 0.065$			b	+30″	+45″	10.6	6 37 8.5	$\rho = -\ 0.002$			
$\Delta t = -18.3$	$\iota = -\ 0.037$							$\Delta t = -18.3$	$\iota = +\ 0.129$			
6 33 12.7	$y_0 = -106.974$			Eros s. p.			9.6	6 36 50.2	$x_0 = -30.572$			
78.					November 4.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 23 19	85.493	114.945	7 25 56	τ	$-3^h\ 49^m.0$	$-3^h\ 44^m.1$		7 28 34	101.818	98.366	7 30 55	Very bad seeing.
	.493	.880		ζ	40°.9	40°.2			.837	.345		
	.474	.911							.843	.333		
	.438	.932		ρ′	−0″.072	−0″.005			.850	.342		
7 24 27	85.392	114.948	7 27 4	ρ″	+0″.001	+0″.001		7 29 23	101.804	98.349	7 31 37	
7 23 53.0	85.458	114.923	7 26 30.0		$B=29^{in}.8$	$T=51°.0$		7 28 58.5	101.830	98.347	7 31 16.0	
	″			Star	y	x	Mag.		″			
	$y = -146.322$			a	..	..	10.5		$x = -17.297$			Field taken at $7^h\ 35^m$. Focal reading $2^{in}.49$. Power 388. Seeing 1. Weight 1.
7 25 11.5	$\rho = -\ 0.071$			b	+30″	+40″	10.5	7 30 7.2	$\rho = -\ 0.004$			
$\Delta t = -18.3$	$\iota = \ 0.017$							$\Delta t = -18.3$	$\iota = +\ 0.139$			
7 24 53.2	$y_0 = \ 146.410$			Eros s. p.			9.6	7 29 48.9	$x_0 = -17.162$			
79.					November 4.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 53 27	83.022	117.334	7 56 39	τ	$-3^h\ 18^m.6$	$-3^h\ 13^m.6$		7 59 21	99.051	101.082	8 0 43	
	.004	.353		ζ	36°.5	35°.8			.032	.070		
	83.000	.337							.018	.094		
	82.968	.312		ρ′	−0″.074	−0″.003			.012	101.022		
7 54 33	82.952	117.325	7 57 26	ρ″	0″.000	−0″.002		8 0 7	99.017	100.995	8 1 35	
7 54 0.0	82.989	117.332	7 57 2.5		$B=29^{in}.8$	$T=51°.0$		7 59 44.0	99.026	101.053	8 1 9.0	
	″			Star	y	x	Mag.		″			
	$y = -170.546$			a	...	...	10.5		$x = -10.066$			Focal reading $2^{in}.49$. Power 388. Seeing 1. Weight 1.
7 55 31.2	$\rho = -\ 0.074$							8 0 26.5	$\rho = -\ 0.005$			
$\Delta t = -18.3$	$\iota = -\ 0.008$							$\Delta t = -18.3$	$\iota = +\ 0.136$			
7 55 12.9	$y_0 = -170.628$			Eros s. p.			....	8 0 8.2	$x_0 = -9.935$			
80.					November 5.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 42 49.5	80.634	119.650	5 45 40	τ	$-5^h\ 23^m.9$	$-5^h\ 19^m.0$		5 48 2	113.878	86.218	5 50 20	Mr. Peters recording.
	.646	.620		ζ	54°.5	53°.8			.858	.197		
	.617	.662							.882	.221		
	.584	.701		ρ′	−0″.146	+0″.045			.850	.242		
5 43 55.5	80.565	119.755	5 46 28	ρ″	−0″.023	+0″.031		5 49 4	113.871	86.230	5 51 17	
5 43 22.5	80.609	119.678	5 46 4.0		$B=29^{in}.8$	$T=60°.0$		5 48 33.0	113.868	86.222	5 50 48.5	
	″			Star	y	x	Mag.		″			
	$y = -194.014$			a	...	..	10.5		$x = +137.289$			Field taken at $5^h\ 41^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
5 44 43.2	$\rho = -\ 0.169$			b	+ 80″	+10″	10.5	5 49 40.8	$\rho = +\ 0.076$			
$\Delta t = -18.5$	$\iota = +\ 0.186$			c	−165	− 5	11.4	$\Delta t = -18.5$	$\iota = +\ 0.269$			
5 44 24.7	$y_0 = -193.997$			Eros n. p.			9.5	5 49 22.3	$x_0 = +137.634$			

81. 1900 November 5.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 0 14	100.852	99.169	6 1 35	τ	$-5^h\ 7^m.2$	$-5^h\ 12^m.8$	5 54 6	86.138	114.145	5 56 24	
	.818	.160		ζ	52°.2	52°.9		.128	.061		
	.846	.152						.114	.040		
	.868	.129		ρ'	$-0''.006$	$+0''.044$		.107	.022		
6 1 5	100.882	99.074	6 2 30	ρ''	$-0''.017$	$0''.000$	5 55 6	86.080	114.004	5 57 35	
6 0 39.5	100.853	99.137	6 2 2.5		$B=29^{in}.8$	$T=59°.0$	5 54 36.0	86.113	114.054	5 56 59.5	

	″		Star	y	x	Mag.		″		
	$y = -8.522$							$x = +138.754$		Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
6 1 21.0	$\rho = 0.023$						5 55 47.8	$\rho = +\ 0.044$		
$\Delta t = -18.5$	$\iota = +0.179$		c	...	...	11.4	$\Delta t = -18.5$	$\iota = +\ 0.002$		
6 1 2.5	$y_0 = -8.366$		Eros n. p.			....	5 55 29.3	$x_0 = +138.800$		

82. November 5.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 47 7	90.891	109.382	7 49 11	τ	$-3^h\ 19^m.6$	$-3^h\ 15^m.2$	7 51 11	116.433	83.647	7 53 42	
	.863	.391		ζ	36°.6	36°.0		.429	.662		
	.839	.431						.456	.670		
	.810	.442		ρ'	$-0''.040$	$+0''.045$		.443	.639		
7 47 54	90.785	109.453	7 50 1	ρ''	$+0''.002$	$-0''.001$	7 52 10	116.426	83.632	7 54 35	
7 47 30.5	90.838	109.416	7 49 36.0		$B=29^{in}.8$	$T=56°.0$	7 51 40.5	116.437	83.650	7 54 8.5	

	″		Star	y	x	Mag.		″		
	$y = -92.258$		a	+150″	− 3″	10.8		$x = +162.818$		Field taken at $8^h\ 56^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
7 48 33.2	$\rho = -\ 0.038$						7 52 54.5	$\rho = +\ 0.044$		
$\Delta t = -18.5$	$\iota = +\ 0.130$		c	...	...	11.2	$\Delta t = -18.5$	$\iota = +\ 0.076$		
			d	+ 15	−105	11.1				
7 48 14.7	$y_0 = -92.166$		Eros n. p.			9.5	7 52 36.0	$x_0 = +162.938$		

83. November 5.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 24 9	97.773	102.437	16 25 30	τ	$+5^h\ 19^m.2$	$+5^h\ 22^m.9$	16 27 41	107.689	92.484	16 29 23	
	.792	.450		ζ	53°.8	54°.3		.702	.499		
	.761	.473						.692	.490		
	.752	.491		ρ'	$-0''.018$	$+0''.026$		.687	.473		
16 24 54	97.710	102.500	16 26 17	ρ''	$+0''.012$	$-0''.005$	16 28 24	107.685	92.442	16 30 8	
16 24 31.5	97.758	102.470	16 25 53.5		$B=29^{in}.9$	$T=43°.0$	16 28 2.5	107.691	92.478	16 29 45.5	

	″		Star	y	x	Mag.		″		
	$y = -23.400$		a	...	...	11.0		$x = +\ 75.547$		Field taken at $16^h\ 22^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2–3. Weight 3.
16 25 12.5	$\rho = -\ 0.006$		b	+ 35″	+ 75″	11.0	16 28 54.0	$\rho = +\ 0.021$		
$\Delta t = -18.5$	$\iota = +\ 0.030$		c	−130	− 45	10.5	$\Delta t = -18.5$	$\iota = +\ 0.012$		
			d	+100	−110	10.5				
16 24 54.0	$y_0 = -23.376$		Eros n. p.			9.5	16 28 35.5	$x_0 = +\ 75.580$		

84. November 5.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 34 3	104.733	95.267	16 35 51	τ	$+5^h\ 29^m.3$	$5^h\ 26^m.1$	16 31 0	97.100	103.010	16 32 20	
	.712	.254		ζ	55°.2	54°.8		.114	.022		
	.727	.247						.100	.091		
	.754	.222		ρ'	$-0''.038$	$-0''.010$		.094	.060		
16 34 45	104.747	95.199	16 36 28	ρ''	$-0''.006$	$-0''.008$	16 31 43	97.092	103.115	16 33 9	
16 34 24.0	104.735	95.238	16 36 9.5		$B=29^{in}.9$	$T=43°.0$	16 31 21.5	97.100	103.060	16 32 44.5	

	″		Star	y	x	Mag.		″		
	$y = -47.162$							$x = -\ 29.597$		Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
16 35 16.8	$\rho = -\ 0.044$		b	...	...	11.0	16 32 3.0	$\rho = -\ 0.018$		
$\Delta t = -18.5$	$\iota = -\ 0.013$						$\Delta t = -18.5$	$\iota = +\ 0.019$		
16 34 58.3	$y_0 = -47.219$		Eros s. p.			....	16 31 44.5	$x_0 = -\ 29.596$		

85. 1900 November 5.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
17 11 22	93.168	106.723	17 13 5	τ	$+6^h\ 6^m.8$	$+6^h\ 10^m.8$	17 15 6	113.283	86.860	17 17 6	
	.201	.705		ζ	60°.3	60°.8		.285	.850		
	.211	.726						.275	.796		
	.267	.712		ρ'	+0″.066	+0″.062		.290	.845		
17 12 11	93.260	106.680	17 13 56	ρ''	+0″.045	+0″.023	17 16 3	113.301	86.800	17 18 7	
17 11 46.5	93.221	106.709	17 13 30.5		$B=29^{in}.9$	$T=44°.0$	17 15 34.5	113.287	86.830	17 17 36.5	

	″		Star	y	x	Mag.		″		
	$y = +66.980$							$x = +131.384$		Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
17 12 38.5	$\rho = +0.111$		c	...	...	10.5	17 16 35.5	$\rho = +0.085$		
$\Delta t=$ 18.5	$\iota = +0.074$						$\Delta t=$ −18.5	$\iota = -0.036$		
17 12 20.0	$y_0=+67.165$		Eros n. f.			....	17 16 17.0	$x_0=+131.433$		

86. November 6.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 51 26	95.837	104.337	5 52 50	τ	$-5^h\ 10^m.2$	$-5^h\ 7^m.3$	5 54 14	102.501	97.534	5 55 42	
	.820	.364		ζ	52°.6	52°.2		.476	.527		
	.792	.388						.494	.544		
	.784	.393		ρ'	−0″.030	+0″.008		.508	.547		
5 52 7	95.741	104.406	5 53 26	ρ''	−0″.003	+0″.006	5 55 3	102.519	97.552	5 56 29	
5 51 46.5	95.795	104.378	5 53 8.0		$B=29^{in}.8$	$T=52°.0$	5 54 38.5	102.500	97.541	5 56 5.5	

	″		Star	y	x	Mag.		″		
	$y = -42.623$		a	..	...	11.2		$x = +24.626$		Field taken at $5^h\ 50^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 52 27.2	$\rho = -0.033$		b	−80″	−20″	11.4	5 55 22.0	$\rho = +0.014$		
$\Delta t=$ −18.6	$\iota = +0.032$		c	−70	+130	11.6	$\Delta t=$ 18.6	$\iota = +0.060$		
5 52 8.6	$y_0=-42.624$		Eros n. p.			9.5	5 55 3.4	$x_0=+24.700$		

87. November 6.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 32 12	87.888	112.384	7 34 17	τ	$-3^h\ 28^m.5$	$-3^h\ 24^m.8$	7 36 26	104.397	95.800	7 37 46	
	.857	.361		ζ	37°.9	37°.4		.368	.785		
	.842	.462						.355	.798		
	.831	.452		ρ'	−0″.055	+0″.012		.362	.807		
7 33 0	87.822	112.499	7 35 24	ρ''	0″.000	−0″.001	7 37 6	104.373	95.794	7 38 30	
7 32 36.0	87.848	112.432	7 34 50.5		$B=29^{in}.8$	$T=49°.0$	7 36 46.0	104.371	95.797	7 38 8.0	

	″		Star	y	x	Mag.		″		
	$y = -122.083$		a	..	...	11.3		$x = +42.578$		Field taken at $7^h\ 40^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
7 33 43.2	$\rho = -0.055$		b	−80″	−40″	11.6	7 37 27.0	$\rho = +0.011$		
$\Delta t=$ −18.6	$\iota = +0.035$		c	−70	+100	11.8	$\Delta t=$ −18.6	$\iota = +0.105$		
7 33 24.6	$y_0=-122.103$		Eros n. p.			9.5	7 37 8.4	$x_0=+42.694$		

88. November 6.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 23 11	96.452	103.701	16 24 45	τ	$+5^h\ 24^m.4$	$+5^h\ 27^m.8$	16 26 42	102.843	97.384	16 28 12	Eros examined for disc with power 388, cell 4; very small disc 0″.10 in diameter, believe to be real as it is sharply defined at moments of best seeing.
	.447	.724		ζ	54°.5	55°.0		.857	.372		
	.442	.735						.868	.354		
	.487	.745		ρ'	−0″.028	+0″.010		.857	.348		
16 23 59	96.390	103.770	16 25 33	ρ''	+0″.005	−0″.007	16 27 26	102.854	97.361	16 29 0	
16 23 35.0	96.444	103.735	16 25 9.0		$B=29^{in}.8$	$T=45°.0$	16 27 4.0	102.856	97.364	16 28 36.0	

	″		Star	y	x	Mag.		″		
	$y = -36.207$		a	...	...	11.4		$x = +27.273$		Field taken at $16^h\ 22^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
16 24 22.0	$\rho = -0.023$		b	−90″	+125″	11.0	16 27 50.0	$\rho = +0.003$		
$\Delta t=$ −18.6	$\iota = +0.007$		c	−120	−25	11.2	$\Delta t=$ 18.6	$\iota = +0.011$		
16 24 3.4	$y_0=-36.223$		Eros n. p.			9.4	16 27 31.4	$x_0=+27.287$		

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
89.					1900 NOVEMBER 6.						
h m s	r	r	h m s				h m s	r	r	h m s	
17 2 41	93.528	106.865	17 4 27	τ	$+6^h\ 4^m.1$	$+6^h\ 7^m.6$	17 6 20	102.980	97.192	17 7 43	
	.500	.848		ζ	59°.9	60°.3		.971	.178		
	.470	.861		ρ'	$-0''.064$	$+0''.013$		.940	.163		
	.442	.842						.952	.155		
17 3 18	93.430	106.833	17 5 25	ρ''	$+0''.009$	$-0''.025$	17 7 10	102.969	97.162	17 8 25	
17 2 59.5	93.474	106.850	17 4 56.0		$B=29^{in}.8$	$T=45°.0$	17 6 45.0	102.962	97.170	17 8 4.0	
	″			Star	y x	Mag.		″			
	$y = -66.424$			a	... ...	11.6		$x = +28.763$			Field taken at $17^h\ 9^m$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
17 3 57.8	$\rho = -0.055$			b	$-90''$ $+180''$	11.4	17 7 24.5	$\rho = -0.012$			
$\Delta t = -18.6$	$\iota = +0.012$			c	-175 -30	11.5	$\Delta t = -18.6$	$\iota = +0.030$			
17 3 39.2	$y_0 = -66.467$			Eros n. p.		9.5	17 7 5.9	$x_0 = +28.781$			
90.					NOVEMBER 7.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 38 21	85.352	114.933	5 40 42	τ	$-5^h\ 16^m.8$	$-5^h\ 12^m.6$	5 42 52	103.758	96.376	5 44 34	Mr. Peters recording.
	.335	.945		ζ	53°.5	52°.9		.770	.358		
	.312	.975		ρ'	$-0''.107$	$-0''.012$		.776	.370		
	.307	114.981						.758	.378		
5 39 11	85.292	115.003	5 41 29	ρ''	$+0''.005$	$+0''.021$	5 43 48	103.742	96.358	5 45 14	
5 38 46.0	85.320	114.967	5 41 0.5		$B=29^{in}.6$	$T=57°.0$	5 43 15.0	103.761	96.368	5 44 54.0	
	″			Star	y x	Mag.		″			
	$y = -147.226$			a	... ..	10.0		$x = -36.713$			Field taken at $5^h\ 35^m$. Focal reading $2^{in}.49$. Power 388. Seeing —. Weight 3.
5 39 53.2	$\rho = -0.102$			b	$+55''$ $-40''$	11.8	5 44 4.5	$\rho = +0.009$			
$\Delta t = -18.6$	$\iota = -0.049$						$\Delta t = -18.6$	$\iota = +0.202$			
5 39 34.6	$y_0 = -147.377$			Eros s. p.		9.5	5 43 45.9	$x_0 = -36.502$			
91.					NOVEMBER 7.						
h m s	r	r	h m s				h m s	r	r.	h m s	
7 59 0	89.322	110.649	8 1 20	τ	$-2^h\ 55^m.5$	$-2^h\ 51^m.1$	8 3 26	116.466	83.564	8 5 39	
	.352	.668		ζ	33°.2	32°.5		.513	.548		
	.422	.632		ρ'	$+0''.041$	$+0''.046$		.527	.542		
	.425	.604						.485	.557		
8 0 0	89.430	110.582	8 2 4	ρ''	$+0''.003$	$+0''.002$	8 4 23	116.468	83.564	8 6 33	
7 59 30.0	89.390	110.627	8 1 42.0		$B=29^{in}.6$	$T=54°.0$	8 3 54.5	116.492	83.555	8 6 6.0	
	″			Star	y x	Mag.		″			
	$y = +105.462$			a	... ...	....		$x = +163.563$			Focal reading $2^{in}.49$ Power 388. Seeing —. Weight 3.
8 0 36.0	$\rho = +0.044$						8 5 0.2	$\rho = +0.048$			
$\Delta t = -18.6$	$\iota = +0.114$						$\Delta t = -18.6$	$\iota = -0.067$			
8 0 17.4	$y_0 = +105.620$			Eros n. f.		....	8 4 41.6	$x_0 = +163.544$			
92.					NOVEMBER 9.						
h m s	r	r	h m s				h m s	r	r	h m s	
6 7 9	98.462	101.721	6 8 17	τ	$-4^h\ 36^m.5$	$-4^h\ 33^m.6$	6 9 52	105.084	95.124	6 11 24	Mr. Peters recording. High wind, seeing blurred.
	.414	.731		ζ	47°.8	47°.4		.051	.098		
	.355	.748		ρ'	$-0''.010$	$+0''.015$		.070	.089		
	.365	.775						.102	.070		
6 7 50	98.358	101.813	6 8 53	ρ''	$-0''.003$	$+0''.001$	6 10 40	105.079	95.098	6 12 7	
6 7 29.5	98.399	101.758	6 8 35.0		$B=29^{in}.6$	$T=41°.0$	6 10 16.0	105.077	95.096	6 11 45.5	
	″			Star	y x	Mag.		″			
	$y = -16.681$			a	... ...	11.0		$x = +49.565$			Field taken at $6^h\ 14^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3
6 8 2.2	$\rho = -0.013$			b	$0''$ $-130''$	9.5	6 11 0.8	$\rho = +0.016$			
$\Delta t = -18.4$	$\iota = +0.058$			c	$+60$ -60	10.0	$\Delta t = -18.4$	$\iota = +0.023$			
				d	$+150$ $+45$	10.0					
6 7 43.8	$y_0 = -16.636$			Eros n. p.		9.5	6 10 42.4	$x_0 = +49.604$			

93.					1900 NOVEMBER 9.						
t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 17 3	98.800	101.488	6 18 20	τ	$-4^h\ 26^m.5$	$-4^h\ 21^m.8$	6 20 38	119.811	80.258	6 23 46	
	.772	.505		ζ	46°.4	45°.7		.792	.292		
	.758	.514						.785	.307		
	.756	.523		ρ'	−0″.008	+0″.057		.775	.298		
6 17 47	98.745	101.541	6 19 4	ρ''	−0″.010	+0″.001	6 21 39	119.812	80.287	6 24 50	
6 17 25.0	98.766	101.514	6 18 42.0		B=29^{in}.6	T=41°.0	6 21 8.5	119.795	80.288	6 24 18.0	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = −13.647							x = +196.190			
6 18 3.5	ρ = − 0.018			*b*	...	... 9.5	6 22 43.2	ρ = + 0.058			Focal reading 2^{in}.49. Power 388. Seeing 2. Weight 2.
Δt = −18.4	ι = + 0.218						Δt = −18.4	ι = + 0.022			
6 17 45.1	y_0 = 13.447			Eros n. p.		...	6 22 24.8	x_0 = +196.270			
94.					NOVEMBER 9.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 28 46	93.014	107.199	7 30 37	τ	$-3^h\ 14^m.1$	$-3^h\ 9^m.6$	7 32 46	120.157	80.038	7 35 17	
	93.008	.242		ζ	35°.9	35°.1		.173	.032		
	92.989	.253						.157	80.012		
	.983	.272		ρ'	−0″.031	+0″.057		.148	79.987		
7 29 36	92.967	107.286	7 31 21	ρ''	+0″.003	0″.001	7 33 49	120.155	80.036	7 36 31	
7 29 11.0	92.992	107.250	7 30 59.0		B=29^{in}.6	T=40°.0	7 33 17.5	120.158	80.021	7 35 54.0	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = −70.804			*a*	+25″	+120″ 11.2		x = +199.318			Field taken at 7^h 38^m. Focal reading 2^{in}.49. Power 388. Seeing 2. Weight 2.
7 30 5.0	ρ = − 0.028			*b*	..	... 9.6	7 34 35.8	ρ = + 0.056			
Δt = −18.4	ι = + 0.155			*c*	+80	+ 60 10.2	Δt = −18.4	ι = + 0.059			
7 29 46.6	y_0 = −70.677			Eros n. p.		9.5	7 34 17.4	x_0 = +199.433			
95.					NOVEMBER 9.						
h m s	r	r	h m s				h m s	r	r	h m s	
16 57 6	94.640	105.292	16 59 4	τ	$+6^h\ 16^m.7$	$+6^h\ 20^m.5$	17 0 55	112.258	87.868	17 2 53	Seeing unsteady.
	.620	.217		ζ	61°.5	62°.0		.259	.857		
	.664	.200						.255	.849		
	.767	.189		ρ'	+0″.055	−0″.063		.267	.847		
16 58 9	94.788	105.178	16 59 53	ρ''	0″.049	+0″.020	17 1 56	112.263	87.852	17 3 37	
16 57 37.5	94.696	105.215	16 59 28.5		B=29^{in}.9	T=35°.0	17 1 20.5	112.260	87.855	17 3 15.0	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = +52.236			*a*	..	... 7.8		x = −121.194			Field taken at 17^h 5^m. Focal reading 2^{in}.49. Power 388. Seeing 2. Weight 2.
16 58 33.0	ρ = + 0.006			*b*	+30″	−240″ 10.8	17 2 17.8	ρ = − 0.043			
Δt = −18.3	ι = − 0.074						Δt = −18.3	ι = − 0.030			
16 58 14.7	y_0 = +52.168			Eros s. f.		9.5	17 1 59.5	x_0 = −121.267			
96.					NOVEMBER 10.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 48 33	96.171	103.764	5 50 4	τ	$-4^h\ 49^m.0$	$-4^h\ 45^m.2$	5 51 58	114.204	85.921	5 54 4	Mr. Peters recording.
	.203	.746		ζ	49°.6	49°.0		.218	.895		
	.233	.743						.251	.882		
	.250	.715		ρ'	+0″.024	−0″.042		.258	.895		
5 49 16	96.264	103.711	5 50 50	ρ''	+0″.012	−0″.003	5 52 48	114.264	85.919	5 54 51	
5 48 54.5	96.224	103.736	5 50 27.0		B=29^{in}.9	T=44°.5	5 52 23.0	114.239	85.902	5 54 27.5	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = +37.304			*a*	..	... 10.8		x = −140.721			Field taken at 5^h 56^m. Focal reading 2^{in}.49. Power 388. Seeing 3. Weight 3.
5 49 40.8	ρ = + 0.036			*b*	−15″	−210″ 11.4	5 53 25.2	ρ = − 0.045			
Δt = −18.2	ι = − 0.171						Δt = −18.2	ι = − 0.039			
5 49 22.6	y_0 = +37.169			Eros s. f.		9.5	5 53 7.0	x_0 = −140.805			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
97.					1900 NOVEMBER 10.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 59 10	96.793	103.177	6 0 31	τ	$-4^h\ 38^m.4$	$-4^h\ 35^m.3$		6 2 11	107.652	92.520	6 3 43	
	.814	.204		ζ	48°.1	47°.6			.615	.508		
	.827	.158		ρ'	$+0''.020$	$+0''.022$			.592	.522		
	.871	.134							.610	.500		
5 59 51	96.862	103.123	6 1 26	ρ''	$-0''.005$	$-0''.002$		6 2 50	107.600	92.511	6 4 23	
5 59 30.5	96.833	103.159	6 0 58.5	$B=29^{in}.9$		$T=44°.0$		6 2 30.5	107.614	92.512	6 4 3.0	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = +31.414$								$x = +74.996$			Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
6 0 14.5	$\rho = +0.015$			*b*	...	...	11.4	6 3 16.8	$\rho = +0.020$			
$\Delta t=-18.2$	$\iota = -0.087$							$\Delta t=-18.2$	$\iota = -0.032$			
5 59 56.3	$y_0 = +31.516$			Eros n. f.			....	6 2 58.6	$x_0 = +74.984$			
98.					NOVEMBER 10.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 51 3	94.323	106.096	7 52 47	τ	$-2^h\ 45^m.8$	$-2^h\ 42^m.2$		7 54 39	114.269	85.899	7 56 28	
	.283	.005		ζ	31°.8	31°.2			.250	.929		
	.255	.120		ρ'	$-0''.023$	$-0''.041$			.227	.924		
	.219	.128							.243	.905		
7 51 54	94.204	106.154	7 53 33	ρ''	$-0''.003$	$-0''.001$		7 55 26	114.252	85.912	7 57 13	
7 51 28.5	94.257	106.101	7 53.10.0	$B=29^{in}.9$		$T=44°.0$		7 55 2.5	114.248	85.914	7 56 50.5	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -58.817$			*a*	...	...	10.6		$x = -140.706$			Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
7 52 19.2	$\rho = -0.026$							7 55 56.5	$\rho = -0.042$			
$\Delta t=-18.2$	$\iota = -0.091$							$\Delta t=-18.2$	$\iota = +0.041$			
7 52 1.0	$y_0 = -58.934$			Eros s. p.			....	7 55 38.3	$x_0 = -140.707$			
99.					NOVEMBER 10.							
h m s	r	r	h m s					h m s	r	r	h m s	Parallel of micrometer tested on equatorial stars in the meridian at 8h 15m.
8 1 41	104.355	95.948	8 3 22	τ	$-2^h\ 35^m.2$	$-2^h\ 38^m.7$		7 58 9	96.258	103.859	7 59 52	
	.336	.942		ζ	30°.3	30°.8			.242	.843		
	.312	.968		ρ'	$+0''.016$	$+0''.011$			.269	.848		
	.284	95.990							.252	.852		
8 2 33	104.261	96.004	8 4 0	ρ''	$+0''.001$	$+0''.001$		7 59 3	96.240	103.861	8 0 35	
8 2 7.0	104.310	95.970	8 3 41.0	$B=29^{in}.9$		$T=44°.0$		7 58 36.0	96.252	103.853	8 0 13.5	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = +41.416$			*a*	$+135''$	$+140''$	10.6		$x = +37.747$			Field taken at 8h 6m. Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
8 2 54.0	$\rho = +0.017$			*b*	$+140$	-35	11.4	7 59 24.8	$\rho = +0.012$			
$\Delta t=-18.2$	$\iota = +0.023$			*c*	...	...	11.3	$\Delta t=-18.2$	$\iota = -0.029$			
8 2 35.8	$y_0 = +41.456$			Eros n. f.			9.5	7 59 6.6	$x_0 - +37.730$			
100.					NOVEMBER 12.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 46 3	95.318	104.846	5 48 9	τ	$-4^h\ 39^m.2$	$-4^h\ 35^m.5$		5 49 55	107.352	92.831	5 51 41	
	.325	.862		ζ	48°.2	47°.7			.343	.819	58	
	.300	.888		ρ'	$-0''.030$	$-0''.021$			.324	.807	(7)	
	.281	.901							.340	.842	(16)	
5 46 59	95.274	104.914	5 48 51	ρ''	$+0''.005$	$+0''.003$		5 50 38	107.348	92.832	5 52 25	
5 46 31.0	95.300	104.882	5 48 30.0	$B=29^{in}.6$		$T=42°.0$		5 50 16.5	107.341	92.826	5 52 5.4	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -47.584$			*a*	...	...	11.5		$x = -72.081$			Field taken at 5h 54m. Focal reading 2in.49. Power 388. Seeing 3. Weight 3.
5 47 30.5	$\rho = -0.025$			*b*	$-15''$	$-220''$	10.8	5 51 11.0	$\rho = -0.018$			
$\Delta t=-17.9$	$\iota = -0.084$			*c*	$+90$	-165	10.7	$\Delta t=-17.9$	$\iota = +0.060$			
				d	$+100$	-220	10.0					
5 47 12.6	$y_0 = -47.693$			Eros s. p.			9.5	5 50 53.1	$x_0 = -72.039$			

101. 1900 NOVEMBER 12.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 4 54	101.222	98.707	6 6 23	τ	$-4^h\ 20^m.6$	$-4^h\ 25^m.2$	5 59 33	81.879	118.323	6 2 12	
	.274	.652		ζ	45°.5	46°.2		.892	.300		
	.331	.630						.880	.292		
	.381	.583		ρ'	$-0.''008$	$+0''.052$		.888	.285		
6 5 52	101.392	98.560	6 7 10	ρ''	$-0.''007$	$0''.000$	6 0 33	81.879	118.274	6 3 22	
6 5 23.0	101.320	98.626	6 6 46.5		$B=29^{in}.6$	$T=42°.0$	6 0 3.0	81.884	118.295	6 2 47.0	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
	$y=-13.378$							$x=+180.815$			
6 6 4.8	$\rho=-\ 0.015$			*b*	...	... 10.8	6 1 25.0	$\rho=+\ 0.052$			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
$\Delta t=-17.9$	$\iota=+\ 0.196$						$\Delta t=-17.9$	$\iota=+\ 0.009$			
6 5 46.9	$y_0=-13.197$			Eros n. p.		....	6 1 7.1	$x_0=+180.876$			

102. NOVEMBER 12.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 53 37	90.227	110.067	7 55 42	τ	$-2^h\ 31^m.1$	$-2^h\ 26^m.6$	7 57 36	117.298	82.948	8 0 18	
	.184	.083		ζ	29°.7	29°.0		.284	.956		
	.157	.117						.264	.965		
	.141	.130		ρ'	$-0''.037$	$+0''.050$		.273	.978		
7 54 32	90.131	110.145	7 56 28	ρ''	$+0''.004$	$-0''.003$	7 58 45	117.253	82.982	8 1 32	
7 54 4.5	90.168	110.108	7 56 5.0		$B=29^{in}.6$	$T=40°.0$	7 58 10.5	117.274	82.966	8 0 55.0	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
	$y=-99.021$							$x=-170.372$			
7 55 4.8	$\rho=-\ 0.033$			*b*	...	... 10.3	7 59 32.8	$\rho=-\ 0.047$			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
$\Delta t=-17.8$	$\iota=+\ 0.101$						$\Delta t=-17.8$	$\iota=-\ 0.060$			
7 54 47.0	$y_0=-98.953$			Eros n. p.		9.5	7 59 15.0	$x_0=-170.479$			

103. NOVEMBER 12.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 39 34	93.662	106.512	16 41 36	τ	$+6^h\ 17^m.0$	$+6^h\ 21^m.3$	16 43 57	110.860	89.350	16 45 45	Seeing blurred.
	.625	.553		ζ	61°.6	62°.1		.870	.381		
	.610	.580						.875	.369		
	.604	.614		ρ'	$-0''.067$	$+0''.056$		.861	.378		
16 40 34	93.555	106.659	16 42 35	ρ''	$+0''.043$	$-0''.030$	16 44 48	110.854	89.359	16 46 32	
16 40 4.0	93.611	106.584	16 42 5.5		$B=29^{in}.6$	$T=37°.0$	16 44 22.5	110.864	89.367	16 46 8.5	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
	$y=-64.423$			*a*	..	... 11.4		$x=+106.753$			Field taken at $16^h\ 38^m$. Focal reading $2^{in}.49$. Power 380. Seeing 1-2. Weight 2.
16 41 4.8	$\rho=-\ 0.024$			*b*	$-90''$	$+135''$ 10.5	16 45 15.5	$\rho=+\ 0.026$			
$\Delta t=-17.7$	$\iota=+\ 0.066$			*c*	-75	0 11.6	$\Delta t=-17.7$	$\iota=+\ 0.044$			
16 40 47.1	$y_0=-64.381$			Eros n. p.		9.5	16 44 57.8	$x_0=+106.823$			

104. NOVEMBER 12.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 51 0	93.168	106.803	16 53 49	τ	$+6^h\ 29^m.2$	$+6^h\ 33^m.8$	16 56 25	106.062	94.135	16 58 14	Seeing very much blurred.
	.195	.814		ζ	63°.1	63°.7		.093	.142		
	.210	.753						.104	.120		
	.261	.739		ρ'	$+0''.075$	$-0''.035$		.095	.106		
16 52 40	93.262	106.714	16 55 2	ρ''	$-0''.028$	$+0''.032$	16 57 22	106.128	94.122	16 59 0	
16 51 50.0	93.219	106.765	16 54 25.5		$B=29^{in}.6$	$T=36°.0$	16 56 53.5	106.096	94.125	16 58 37.0	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
	$y=+67.268$							$x=-59.448$			Focal reading $2^{in}.49$. Power 388. Seeing 1-2. Weight 2.
16 53 7.8	$\rho=+\ 0.047$			*b*	...	... 10.5	16 57 45.2	$\rho=\ \ 0.003$			
$\Delta t=-17.7$	$\iota=-\ 0.039$						$\Delta t=\ \ 17.7$	$\iota=-\ 0.043$			
16 52 50.1	$y_0=+67.276$			Eros s. f.		....	16 57 27.5	$x_0=-59.494$			

105. 1900 NOVEMBER 13.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
5 32 2	89.299	111.023	5 34 21	τ	$-4^{h}\ 47^{m}.2$	$-4^{h}\ 43^{m}.1$		5 36 41	99.509	100.538	5 37 58	
20	.263	.017		ζ	$49^{\circ}.3$	$48^{\circ}.8$			.494	.557		
(32)	.237	.046							.512	.548		
(45)	.228	.051		ρ'	$-0''.068$	$+0''.001$			.517	.543		
5 32 57	89.222	111.072	5 35 19	ρ''	$0''.000$	$+0''.008$		5 37 35	99.522	100.539	5 38 35	
5 32 31.2	89.250	111.042	5 34 50.0		$B=29^{in}.4$	$T=50^{\circ}.0$		5 37 8.0	99.511	100.545	5 38 16.5	
	"			Star	y	x	Mag.		"			
	$y = -108.218$			a	...	...	11.2		$x = +5.135$			Field taken at $5^{h}\ 48^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 33 40.6	$\rho = -\ 0.068$			b	$-130''$	$+75''$	11.8	5 37 42.2	$\rho = +0.009$			
$\Delta t = -17.5$	$\iota = +\ 0.007$			c	$+20$	$+105$	10.3	$\Delta t = -17.5$	$\iota = +\ 0.129$			
5 33 23.1	$y_0 = -108.279$			Eros n. p.			9.4	5 37 24.7	$x_0 = +5.273$			

106. NOVEMBER 13.

h m s	r	r	h m s					h m s	r	r	h m s	
5 39 47	102.650	97.607	5 41 34	τ	$-4^{h}\ 39^{m}.6$	$-4^{h}\ 36^{m}.2$		5 43 31	96.728	103.370	5 44 49	
15	.488	.681	56	ζ	$48^{\circ}.3$	$47^{\circ}.8$			.744	.352		
28	.482	.652	(9)						.808	.374		
38	.471	.698	(22)	ρ'	$+0''.015$	$-0''.009$			.773	.381		
5 40 52	102.460	97.721	5 42 34	ρ''	$+0''.002$	$-0''.001$		5 44 16	96.762	103.363	5 45 39	
5 40 24.0	102.510	97.672	5 42 6.8		$B=29^{in}.4$	$T=50^{\circ}.0$		5 43 53.5	96.763	103.368	5 45 14.0	
	"			Star	y	x	Mag.		"			
	$y = +24.025$								$x = -32.800$			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 41 15.4	$\rho = +\ 0.017$			b	...	...	11.8	5 44 33.8	$\rho = -\ 0.010$			
$\Delta t = -17.5$	$\iota = -\ 0.036$							$\Delta t = -17.5$	$\iota = -\ 0.016$			
5 40 57.9	$y_0 = +24.006$			Eros s. f.			....	5 44 16.3	$x_0 = -32.826$			

107. NOVEMBER 13.

h m s	r	r	h m s					h m s	r	r	h m s	
5 52 6	101.532	98.497	5 53 25	τ	$-4^{h}\ 27^{m}.6$	$-4^{h}\ 24^{m}.6$		5 55 7	96.675	103.472	5 56 31	
	.516	.524		ζ	$46^{\circ}.5$	$46^{\circ}.1$			.698	.448		
	.502	.545							.684	.459		
	.493	.578		ρ'	$+0''.008$	$-0''.010$			.675	.469		
5 52 46	101.484	98.583	5 54 8	ρ''	$+0''.002$	$0''.000$		5 55 51	96.691	103.475	5 57 13	
5 52 26.0	101.505	98.565	5 53 46.5		$B=29^{in}.4$	$T=50^{\circ}.0$		5 55 29.0	96.685	103.465	5 56 52.0	
	"			Star	y	x	Mag.		"			
	$y = +14.600$								$x = -33.669$			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 53 6.2	$\rho = +\ 0.010$			b	...	...	11.8	5 56 10.5	$\rho = -\ 0.010$			
$\Delta t = -17.5$	$\iota = -\ 0.037$							$\Delta t = 17.5$	$\iota = -\ 0.011$			
5 52 48.7	$y_0 = +14.573$			Eros s. f.			....	5 55 53.0	$x_0 = -33.690$			

108. NOVEMBER 13.

h m s	r	r	h m s					h m s	r	r	h m s	
7 11 47	104.653	95.562	7 13 30	τ	$-3^{h}\ 7^{m}.4$	$-3^{h}\ 3^{m}.4$		7 15 55	95.635	104.631	7 17 15	Hazy.
	.676	.537		ζ	$34^{\circ}.9$	$34^{\circ}.3$			.622	.618		
	.693	.418							.620	.630		
	.704	.406		ρ'	$-0''.019$	$-0''.013$			.614	.623		
7 12 30	104.706	95.395	7 14 29	ρ''	$-0''.001$	$-0''.001$		7 16 34	95.605	104.631	7 18 11	
7 12 8.5	104.686	95.464	7 13 59.5		$B=29^{in}.4$	$T=47^{\circ}.0$		7 16 14.5	95.619	104.627	7 17 43.0	
	"			Star	y	x	Mag.		"			
	$y = -45.796$			a	$+120''$	$-75''$	11.1		$x = -44.733$			Field taken at $7^{h}\ 19^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
7 13 4.0	$\rho = -\ 0.020$			b	...	..	11.8	7 16 58.8	$\rho = -\ 0.014$			
$\Delta t = -17.5$	$\iota = -\ 0.033$							$\Delta t = -17.5$	$\iota = +\ 0.036$			
7 12 46.5	$y_0 = -45.849$			Eros s. p.			9.4	7 16 41.3	$x_0 = -44.711$			

109. 1900 NOVEMBER 13.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
16 22 57	111.061	89.299	16 25 42	τ	$+6^h\,6^m.7$	$+6^h\,11^m.3$	16 27 59	91.865	108.223	16 30 5	Seeing much blurred. Very windy. Telescope shaken by wind.
	.043	.343	8	ζ	$60^{\circ}.3$	$60^{\circ}.9$		.853	.210	(17)	
	.018	.363						.842	.194	(30)	
	111.011	.395	31	ρ'	$+0''.105$	$+0''.038$		.871	.218	42	
16 23 50	110.982	89.414	16 26 48	ρ''	$+0''.028$	$+0''.038$	16 28 53	91.957	108.197	16 30 59	
16 23 23.5	111.023	89.363	16 26 17.2		$B=29^{in}.6$	$T=41^{\circ}.0$	16 28 26.0	91.878	108.208	16 30 30.6	

	″	*Star*	*y*	*x*	*Mag.*		″	
	$y=+107.565$	*a*	...	...	9.6		$x=+81.094$	Focal reading $2^{in}.49$.
16 24 50.4	$\rho=+\ 0.133$					16 29 28.3	$\rho=+\ 0.076$	Power 388.
$\Delta t=-17.3$	$\iota=+\ 0.047$					$\Delta t=-17.3$	$\iota=-\ 0.061$	Seeing 1.
								Weight 2.
16 24 33.1	$y_0=+107.745$	Eros n. f.			9.4	16 29 11.0	$x_0=+81.109$	

110. NOVEMBER 14.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 46 14	105.344	94.957	5 48 2	τ	$-4^h\,27^m.3$	$-4^h\,23^m.0$	5 50 21	84.744	115.480	5 52 38	
33	.302	94.986		ζ	$46^{\circ}.5$	$45^{\circ}.9$		.743	.459		
41	.269	95.000						.723	.472		
51	.235	.031		ρ'	$+0''.030$	$-0''.045$		.745	.458		
5 47 1	105.208	95.061	5 49 2	ρ''	$+0''.008$	$-0''.002$	5 51 8	84.753	115.448	5 53 26	
5 46 40.0	105.272	95.007	5 48 32.0		$B=29^{in}.9$	$T=39^{\circ}.0$	5 50 44.5	84.742	115.463	5 53 2.0	

	″	*Star*	*y*	*x*	*Mag.*		″	
	$y=+50.976$	*a*	..	...	10.8		$x=-152.559$	Field taken at $5^h\,55^m$.
5 47 36.0	$\rho=+\ 0.038$	*b*	$0''$	$-130''$	11.9	5 51 53.2	$\rho=-\ 0.047$	Focal reading $2^{in}.49$.
$\Delta t=-17.1$	$\iota=-\ 0.168$					$\Delta t=-17.1$	$\iota=-\ 0.050$	Power 388.
								Seeing 3.
								Weight 3.
5 47 18.9	$y_0=+50.846$	Eros s. f.			9.4	5 51 36.1	$x_0=-152.656$	

111. NOVEMBER 14.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 58 35	101.708	98.473	5 59 45	τ	$-4^h\,15^m.3$	$-4^h\,11^m.8$	6 1 52	96.082	104.060	6 3 32	
44	.699	.500	1	ζ	$44^{\circ}.8$	$43^{\circ}.3$		.080	.055		
(53)	.682	.549	11					.123	.047		
(3)	.663	.567	24	ρ'	$+0''.009$	$-0''.011$		.110	.051		
5 59 12	101.650	98.582	6 0 32	ρ''	$+0''.001$	$0''.000$	6 2 44	96.102	104.038	6 4 8	
5 58 53.4	101.680	98.534	6 0 10.6		$B=29^{in}.9$	$T=39^{\circ}.0$	6 2 18.0	96.099	104.050	6 3 50.0	

	″	*Star*	*y*	*x*	*Mag.*		″	
	$y=+15.623$						$x=-39.484$	Focal reading $2^{in}.49$.
5 59 32.0	$\rho=+\ 0.010$	*b*	...	...	11.9	6 3 4.0	$\rho=-\ 0.011$	Power 388.
$\Delta t=-17.1$	$\iota=-\ 0.041$					$\Delta t=-17.1$	$\iota=-\ 0.012$	Seeing 3.
								Weight 3.
5 59 14.9	$y_0=+15.592$	Eros s. f.			....	6 2 46.9	$x_0=-39.507$	

112. NOVEMBER 14.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 8 49	101.522	98.550	8 10 17	τ	$-2^h\,4^m.3$	$-2^h\,0^m.3$	8 12 33	88.420	111.635	8 14 30	
	.562	.486	34	ζ	$25^{\circ}.9$	$25^{\circ}.4$	54	.431	.628	45	
	.563	.472	48				7	.420	.625	58	
	.576	.456	1	ρ'	$-0''.005$	$+0''.035$	15	.428	.636	9	
8 9 35	101.600	98.443	8 11 10	ρ''	$+0''.003$	$0''.000$	8 13 25	88.422	111.624	8 15 20	
8 9 12.0	101.565	98.481	8 10 46.0		$B=29^{in}.9$	$T=35^{\circ}.0$	8 13 2.8	88.424	111.630	8 14 56.4	

	″	*Star*	*y*	*x*	*Mag.*		″	
	$y=-15.315$	*a*	..	...	11.5		$x=+115.240$	Field taken at $8^h\,17^m$.
8 9 59.0	$\rho=-\ 0.002$	*b*	$+75''$	$+165''$	12.0	8 13 59.6	$\rho=+\ 0.035$	Focal reading $2^{in}.49$.
$\Delta t=-17.1$	$\iota=+\ 0.055$					$\Delta t=-17.1$	$\iota=+\ 0.009$	Power 388.
								Seeing 3.
								Weight 3.
8 9 41.9	$y_0=-15.262$	Eros n. p.			9.4	8 13 42.5	$x_0=+115.284$	

113. 1900 November 15.

t	Δα cos δ	Δα′ cos δ	t′		A	D		t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
5 33 18	110.328	89.798	5 35 16	τ	$-4^{h}\,34^{m}.2$	$-4^{h}\,30^{m}.8$		5 36 57	95.248	104.918	5 38 50	Seeing horrible. Very windy.
	.309	.845		ζ	47°.5	47°.0			.272	.932		
	.288	.882							.301	.918		
	.269	.903		ρ′	+0″.062	−0″.014			.323	.936		
5 34 1	110.258	89.937	5 36 56	ρ″	+0″.003	−0″.006		5 37 59	95.272	104.920	5 39 30	
5 33 39.5	110.290	89.873	5 36 6.0		$B=29^{m}.9$	$T=44°.0$		5 37 28.0	95.283	104.925	5 39 10.0	
	″			Star	y	x	Mag.		″			
	y = +101.391			a	...	...	11.0		x = −47.882			Field taken at 5^{h} 41^{m}. Focal reading 2^{in}.49. Power 388. Seeing 1. Weight 1.
5 34 52.8	ρ = + 0.065			b	− 55″	−150″	10.3	5 38 19.0	ρ = − 0.020			
Δt = −16.7	ι = − 0.053			c	+100	− 10	12.2	Δt = −16.7	ι = − 0.110			
5 34 36.1	y_0 = +101.403			Eros s. f.			9.4	5 38 2.3	x_0 = −48.012			

114. November 15.

t	Δα cos δ	Δα′ cos δ	t′		A	D		t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
5 45 12	114.073	86.148	5 47 46	τ	$-4^{h}\,22^{m}.1$	$-4^{h}\,18^{m}.4$		5 49 25	91.052	109.014	5 51 4	
	.091	.172		ζ	45°.8	45°.2			.038	.002		
	.038	.198							.025	.024		
	.029	.219		ρ′	+0″.080	+0″.026			.052	.038		
5 46 5	114.008	86.231	5 48 39	ρ″	−0″.004	−0″.005		5 50 10	91.043	109.027	5 51 51	
5 45 38.5	114.028	86.194	5 48 12.5		$B=30^{m}.0$	$T=43°.0$		5 49 47.5	91.042	109.021	5 51 27.5	
	″			Star	y	x	Mag.		″			
	y = +138.222								x = +89.283			Focal reading 2^{in}.49. Power 388. Seeing 1. Weight 1.
5 46 55.5	ρ = + 0.076			b	...	...	10.3	5 50 37.5	ρ = + 0.021			
Δt = −16.7	ι = + 0.098							Δt = −16.7	ι = − 0.143			
5 46 38.8	y_0 = +138.396			Eros n. f.			....	5 50 20.8	x_0 = +89.161			

115. November 15.

t	Δα cos δ	Δα′ cos δ	t′		A	D		t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
7 36 1	101.264	98.984	7 37 14	τ	$-2^{h}\,31^{m}.5$	$-2^{h}\,28^{m}.2$		7 39 7	92.628	107.593	7 40 51	
19	.248	98.971	29	ζ	29°.7	29°.2		24	.627	.606	8	
29	.234	99.012	44					35	.614	.618	17	
36	.221	.040	56	ρ′	+0″.004	−0″.022		47	.593	.621	26	
7 36 45	101.210	99.052	7 38 9	ρ″	−0″.002	0″.000		7 39 56	92.582	107.628	7 41 36	
7 36 26.0	101.235	99.012	7 37 42.4		$B=30^{m}.1$	$T=38°.0$		7 39 33.8	92.609	107.613	7 41 15.6	
	″			Star	y	x	Mag.		″			
	y = +11.073			a	...	...	11.0		x = −74.509			Focal reading 2^{in}.49. Power 388. Seeing 2. Weight 2.
7 37 4.2	ρ = + 0.002							7 40 24.7	ρ = 0.022			
Δt = −16.7	ι = − 0.043							Δt = −16.7	ι = − 0.005			
7 36 47.5	y_0 = + 11.032			Eros s. f.			....	7 40 8.0	x_0 = −74.536			

116. November 15.

t	Δα cos δ	Δα′ cos δ	t′		A	D		t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
7 42 38	105.332	94.944	7 44 25	τ	$-2^{h}\,24^{m}.6$	$2^{h}\,21^{m}.3$		7 46 4	93.648	106.528	7 47 33	
58	.304	.971	44	ζ	28°.7	28°.2		22	.644	.507	49	
8	.289	94.992	54					33	.652	.521	0	
15	.275	95.002	2	ρ′	+0″.019	+0″.019		42	.645	.533	10	
7 43 26	105.262	95.013	7 45 9	ρ″	+0″.002	+0″.001		7 46 52	93.641	106.552	7 48 25	
7 43 5.0	105.292	94.984	7 44 50.8		$B=30^{m}.1$	$T=38°.0$		7 46 30.6	93.646	106.528	7 47 59.4	
	″			Star	y	x	Mag.		″			
	y = +51.189								x = +63.971			Focal reading 2^{in}.49. Power 388. Seeing 2. Weight 2.
7 43 57.9	ρ = + 0.021			b	...	...	10.3	7 47 15.0	ρ = + 0.020			
Δt = −16.7	ι = + 0.036							Δt = −16.7	ι = − 0.026			
7 43 41.2	y_0 = + 51.246			Eros n. f.			....	7 46 58.3	x_0 = +63.965			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
117.					1900 November 15.							
h m s	r	r	h m s					h m s	r	r	h m s	
16 17 0	104.938	95.018	16 19 4	τ	$+6^{h}\,12^{m}.0$	$+6^{h}\,16^{m}.5$		16 21 15	99.012	100.970	16 23 20	
14	.953	94.978	20	ζ	$61^{\circ}.1$	$61^{\circ}.7$			.032	.942		
29	104.992	.958	34						.103	.974		
38	105.001	.954	44	ρ'	$-0''.053$	$+0''.005$			.132	.980		
16 17 51	105.015	94.937	16 19 55	ρ''	$0''.000$	$-0''.023$		16 22 48	99.140	100.985	16 24 37	
16 17 26.4	104.980	94.969	16 19 31.4		$B=30^{in}.3$	$T=26^{\circ}.0$		16 22 1.5	99.084	100.970	16 23 58.5	
	″			*Star*	y	x	*Mag.*		″			
	$y=-49.714$			a	...	...	11.5		$x=+\ 9.366$			Field taken at $16^{h}\,26^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
16 18 28.9	$\rho=-\ 0.053$			b	$-165''$	$+120''$	10.0	16 23 0.0	$\rho=-\ 0.018$			
$\Delta t=-16.4$	$\iota=+\ 0.006$							$\Delta t=-16.4$	$\iota=+\ 0.034$			
16 18 12.5	$y_0=-49.761$			Eros n. p.			9.4	16 22 43.6	$x_0=+\ 9.382$			
118.					November 16.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 31 15	103.041	96.958	5 32 36	τ	$-4^{h}\,31^{m}.0$	$-4^{h}\,28^{m}.4$		5 34 6	98.357	101.795	5 35 7	
	.061	.941		ζ	$47^{\circ}.1$	$46^{\circ}.7$			.382	.800		
	.068	.922							.363	.808		
	.119	.908		ρ'	$-0''.019$	$0''.005$			.354	.812		
5 31 53	103.132	96.907	5 33 13	ρ''	$+0''.001$	$+0''.002$		5 34 44	98.346	101.801	5 35 40	
5 31 34.0	103.084	96.927	5 32 54.5		$B=30^{in}.4$	$T=37^{\circ}.0$		5 34 25.0	98.360	101.803	5 35 23.5	
	″			*Star*	y	x	*Mag.*		″			
	$y=-30.575$			a	...	..	11.5		$x=-17.098$			Field taken at $5^{h}\,42^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 32 14.2	$\rho=-\ 0.018$			b	$-70''$	$-45''$	11.8	5 34 54.2	$\rho=-\ 0.003$			
$\Delta t=-16.0$	$\iota=-\ 0.018$			c	-180	-40	11.4	$\Delta t=-16.0$	$\iota=+\ 0.033$			
5 31 58.2	$y_0=-30.611$			Eros s. p.			9.4	5 34 38.2	$x_0=-17.068$			
119.					November 16.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 36 33	100.992	99.212	5 38 19	τ	$-4^{h}\,25^{m}.1$	$-4^{h}\,22^{m}.6$		5 39 54	99.398	100.742	5 40 49	After this measure was taken, focal reading changed to $2^{in}.48$.
	.987	.220		ζ	$46^{\circ}.2$	$45^{\circ}.8$			.377	.722		
	.968	.272							.393	.713		
	.957	.274		ρ'	$+0''.005$	$+0''.002$			.406	.711		
5 37 34	100.948	99.285	5 39 9	ρ''	$0''.000$	$0''.000$		5 40 29	99.396	100.718	5 41 28	
5 37 3.5	100.970	99.253	5 38 44.0		$B=30^{in}.4$	$T=37^{\circ}.0$		5 40 11.5	99.394	100.721	5 41 8.5	
	″			*Star*	y	x	*Mag.*		″			
	$y=+\ 8.527$								$x=+\ 6.590$			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 38 9.5	$\rho=+\ 0.005$			b	...	...	11.8	5 40 40.0	$\rho=+\ 0.002$			
$\Delta t=-16.0$	$\iota=+\ 0.008$							$\Delta t=-16.0$	$\iota=-\ 0.006$			
5 37 53.5	$y_0=+\ 8.540$			Eros n. f.			....	5 40 24.0	$x_0=+\ 6.586$			
120.					November 16.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 55 35	105.114	95.210	7 57 44	τ	$-2^{h}\,5^{m}.5$	$-2^{h}\,1^{m}.6$		7 59 51	97.836	102.301	8 1 27	
56	.100	.215	11	ζ	$26^{\circ}.1$	$25^{\circ}.4$		12	.861	.298	35	
9	.115	.259	21					20	.851	.311	43	
28	.060	.264	33	ρ'	$+0''.017$	$+0''.007$		30	.845	.312	52	
7 56 41	105.042	95.306	7 58 41	ρ''	$+0''.001$	$+0''.001$		8 0 49	97.864	102.320	8 2 5	
7 56 9.8	105.086	95.251	7 58 18.0		$B=30^{in}.4$	$T=36^{\circ}.0$		8 0 20.4	97.851	102.308	8 1 44.4	
	″			*Star*	y	x	*Mag.*		″			
	$y=+48.842$			a	$+205''$	$+\ 45''$	11.5		$x=+22.134$			Field taken at $8^{h}\,5^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
7 57 13.9	$\rho=+\ 0.018$			b	$+160$	$+\ 20$	11.7	8 1 2.4	$\rho=+\ 0.008$			
$\Delta t=-16.0$	$\iota=+\ 0.011$			c	...	..	10.1	$\Delta t=-16.0$	$\iota=-\ 0.020$			
7 56 57.9	$y_0=+48.871$			Eros n. f.			9.4	8 0 46.4	$x_0=+22.122$			

t	Δα cos δ	Δα′ cos δ	t′		A	D		t	Δδ	Δδ′	t′	Remarks.
121.						1900 NOVEMBER 17.						
h m s	r	r	h m s					h m s	r	r	h m s	
5 27 42	105.551	94.367	5 29 47	τ	$-4^{h}\,28^{m}.4$	$-4^{h}\,24^{m}.5$		5 31 49	92.172	107 920	5 33 36	
56	.575	.355	0	ζ	46°.7	46°.2		7	.190	.905	42	
7	.580	.339	13	ρ′	−0″.034	+0″.023		21	.205	.910	54	
20	.604	.320	21	ρ″	−0″.004	+0″.003		29	.218	.915	3	
5 28 27	105.612	94.295	5 30 35					5 32 38	92.212	107.900	5 34 9	
5 28 6.4	105.584	94.335	5 30 11.2		$B=30^{in}.2$	$T=43°.0$		5 32 16.8	92.199	107.910	5 33 52.8	
	″			Star	y	x	Mag.		″			
	y = −55.863			a	...	...	11.2		x = +78.022			Field taken at $5^{h}\,35^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 29 8.8	ρ = − 0.038			b	−200″	+20″	10.7	5 33 4.8	ρ = + 0.026			
Δt = −15.2	ι = + 0.089							Δt = −15.2	ι = + 0.066			
5 28 53.6	y_0 = −55.812			Eros n. p.			9.4	5 32 49.6	x_0 = +78.114			
122.						NOVEMBER 17.						
h m s	r	r	h m s					h m s	r	r	h m s	
7 23 25	109.582	90.810	7 25 21	τ	$-2^{h}\,32^{m}.3$	$-2^{h}\,28^{m}.9$		7 27 18	100.512	99.690	7 28 23	
44	.545	.846	38	ζ	29°.7	29°.2		31	.550	.665	34	
0	.520	.852	47	ρ′	+0″.035	−0″.001		43	.546	.659	42	
7	.498	.870	56	ρ″	0″.000	+0″.002		51	.560	.673	50	
7 24 18	109.475	90.860	7 26 4					7 28 4	100.537	99.670	7 29 4	
7 23 54.8	109.524	90.848	7 25 45.2		$B=30^{in}.2$	$T=41°.0$		7 27 41.4	100.541	99.671	7 28 42.6	
	″			Star	y	x	Mag.		″			
	y = +92.747								x = − 4.321			
7 24 50.0	ρ = + 0.035			b	...	...	10.2	7 28 12.0	ρ = + 0.001			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
Δt = −15.2	ι = − 0.002							Δt = 15.2	ι = − 0.052			
7 24 34.8	y_0 = +92.780			Eros s. f.			....	7 27 56.8	x_0 = − 4.372			
123.						NOVEMBER 17.						
h m s	r	r	h m s					h m s	r	r	h m s	
7 49 15	92.490	107.510	7 51 11	τ	$-2^{h}\,6^{m}.4$	$-2^{h}\,2^{m}.7$		7 53 7	101.332	98.833	7 54 28	
35	.531	.490	27	ζ	26°.1	25°.6		26	.319	.805	43	
44	.562	.465	38	ρ′	+0″.026	0″.004		37	.335	.794	57	
55	.576	.458	47	ρ″	0″.000	+0″.002		47	.342	.804	10	
7 50 5	92.581	107.440	7 51 57					7 54 0	101.348	98.792	7 55 21	
7 49 42.8	92.548	107.473	7 51 36.0		$B=30^{in}.2$	$T=40°.0$		7 53 35.4	101.335	98.806	7 54 55.8	
	″			Star	y	x	Mag.		″			
	y = +74.119			a	+180″	−60″	11.8		x = −12.559			Field taken at $7^{h}\,57^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
7 50 39.4	ρ = + 0.026			b	...	..	10.2	7 54 15.6	ρ = − 0.002			
Δt = −15.2	ι = − 0.006							Δt = −15.2	ι = − 0.032			
7 50 24.2	y_0 = +74.139			Eros s. f.			9.4	7 54 0.4	x_0 = −12.593			
124.						NOVEMBER 21.						
h m s	r	r	h m s					h m s	r	r	h m s	
5 45 12	93.387	106.912	5 47 8	τ	$-3^{h}\,48^{m}.6$	$-3^{h}\,44^{m}.7$		5 49 19	102.295	97.858	5 50 42	Seeing much blurred. The micrometer was overhauled on November 19 as described in the introduction.
28	.368	.882	28	ζ	40°.9	40°.3		(34)	.274	.812	4	
37	.335	.873	42	ρ′	−0″.032	+0″.006		49	.296	.849	15	
46	.330	.941	0	ρ″	0″.000	+0″.001		2	.200	.822	24	
5 45 59	93.312	106.955	5 48 9					5 50 13	102.230	97.800	5 51 36	
5 45 36.4	93.346	106.913	5 47 41.4		$B=29^{in}.7$	$T=70°.0$		5 49 47.4	102.259	97.828	5 51 12.2	
	″			Star	y	x	Mag.		″			
	y = −67.375			a	...	..	10.5		x = + 22.005			Field taken at $5^{h}\,53^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 1. Weight 2.
5 46 38.9	ρ = − 0.032			b	−175″	+5″	10.9	5 50 29.8	ρ = + 0.007			
Δt = −15.0	ι = + 0.022							Δt = 15.0	ι = + 0.064			
5 46 23.9	y_0 = −67.385			Eros n. p.			9.3	5 50 14.8	x_0 = + 22.076			

125. 1900 NOVEMBER 21.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
5 58 14	91.993	107.982	6 0 22	τ	$-3^{h}\,35^{m}.4$	$-3^{h}\,31^{m}.3$		6 2 39	100.515	99.604	6 4 9	
32	92.007	108.006	39	ζ	$38^{\circ}.9$	$38^{\circ}.3$		2	.453	.621	24	
50	.015	107.975	51	ρ'	$+0''.035$	$+0''.001$			.460	.637	33	
5	.046	.970	5	ρ''	$0''.000$	$0''.000$		25	.426	.654	51	
5 59 19	92.058	107.974	6 1 15					6 3 37	100.397	99.661	6 5 4	
5 58 48.0	92.024	107.981	6 0 50.4		$B=29^{in}.7$	$T=69^{\circ}.0$		6 3 10.7	100.450	99.635	6 4 36.2	
	″			Star	y	x	Mag.		″			
5 59 49.2 $\Delta t=-15.0$	$y=+79.244$ $\rho=+0.035$ $\iota=+0.005$			b	...	...	10.9	6 3 53.4 $\Delta t=-15.0$	$x=+4.047$ $\rho=+0.001$ $\iota=-0.064$			Focal reading $2^{in}.48$. Power 388. Seeing 1. Weight 2.
5 59 34.2	$y_0=+79.284$			Eros n. f.			....	6 3 38.4	$x_0=+3.984$			

126. NOVEMBER 21.

h m s	r	r	h m s					h m s	r	r	h m s	
7 56 17	99.212	100.681	7 57 34	τ	$-1^{h}\,37^{m}.4$	$-1^{h}\,33^{m}.6$		7 59 50	105.147	94.749	8 1 29	Micrometer parallel tested on equatorial stars at $8^{h}\,45^{m}$, reading $0^{\circ}.00$.
32	.228	.710	51	ζ	$21^{\circ}.9$	$21^{\circ}.4$		9	.132	.732	43	
42	.232	.694	4	ρ'	$+0''.002$	$-0''.015$		21	.146	.745	57	
58	.272	.713	17	ρ''	$-0''.001$	$0''.000$		36	.143	.736	8	
7 57 13	99.294	100.679	7 58 27					8 0 52	105.163	94.729	8 2 20	
7 56 44.4	99.248	100.695	7 58 2.6		$B=29^{in}.8$	$T=64^{\circ}.0$		8 0 21.6	105.146	94.738	8 1 55.4	
	″			Star	y	x	Mag.		″			
7 57 23.5 $\Delta t=-15.1$	$y=+7.186$ $\rho=+0.001$ $\iota=-0.018$			b	...	...	10.9	8 1 8.5 $\Delta t=-15.1$	$x=-51.687$ $\rho=-0.015$ $\iota=-0.001$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
7 57 8.4	$y_0=+7.169$			Eros s. f.			....	8 0 53.4	$x_0=-51.703$			

127. NOVEMBER 22.

h m s	r	r	h m s					h m s	r	r	h m s	
5 38 17	100.853	99.245	5 39 28	τ	$-3^{h}\,50^{m}.6$	$-3^{h}\,48^{m}.1$		5 40 56	99.765	100.312	5 41 58	
34	.837	.275	39	ζ	$41^{\circ}.2$	$40^{\circ}.9$		9	.748	.320	9	
43	.829	.283	52	ρ'	$+0''.004$	$-0''.001$		22	.734	.310	19	
53	.820	.294	6	ρ''	$0''.000$	$0''.000$		31	.742	.314	29	
5 39 7	100.799	99.301	5 40 12					5 41 38	99.742	100.321	5 42 38	
5 38 42.8	100.828	99.280	5 39 51.4		$B=29^{in}.8$	$T=60^{\circ}.0$		5 41 19.2	99.746	100.315	5 42 18.6	
	″			Star	y	x	Mag.		″			
5 39 17.1 $\Delta t=-15.4$	$y=+7.688$ $\rho=+0.004$ $\iota=-0.002$			a	...	...	8.5	5 41 48.9 $\Delta t=-15.4$	$x=-2.826$ $\rho=-0.001$ $\iota=-0.005$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 4.
5 39 1.7	$y_0=+7.690$			Eros s. f.			...	5 41 33.5	$x_0=-2.832$			

128. NOVEMBER 22.

h m s	r	r	h m s					h m s	r	r	h m s	
5 43 43	100.552	99.512	5 45 6	τ	$-3^{h}\,45^{m}.0$	$-3^{h}\,41^{m}.8$		5 47 6	99.492	100.645	5 48 15	
5	.547	.543	23	ζ	$40^{\circ}.4$	$39^{\circ}.9$		18	.498	.635	30	
16	.541	.550	36	ρ'	$+0''.002$	$-0''.002$		29	.500	.610	44	
29	.533	.569	53	ρ''	$0''.000$	$0''.000$		41	.484	.656	58	
5 44 39	100.520	99.578	5 46 2					5 47 55	99.475	100.683	5 49 13	
5 44 13.8	100.539	99.550	5 45 36.0		$B=29^{in}.8$	$T=60^{\circ}.0$		5 47 29.8	99.490	100.646	5 48 44.0	
	″			Star	y	x	Mag.		″			
				a	..	..	8.5					
5 44 54.9 $\Delta t=-15.4$	$y=+4.912$ $\rho=+0.002$ $\iota=-0.004$			b	$-75''$	$+80''$	9.4	5 48 6.9 $\Delta t=-15.4$	$x=-5.741$ $\rho=-0.002$ $\iota=-0.002$			Field taken at $5^{h}\,52^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 4.
5 44 39.5	$y_0=+4.910$			Eros s. f.			9.4	5 47 51.5	$x_0=$ 5.745			

129.

1900 NOVEMBER 22.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
7 11 58	95.455	104.718	7 14 21	τ	$-2^h\ 15^m.9$	$-2^h\ 12^m.4$		7 15 59	105.093	94.918	7 17 34	
15	.468	.749	34	ζ	$27^\circ.1$	$26^\circ.6$		16	.048	.894	51	
49	.363	.764	45	ρ'	$-0''.016$	$-0''.014$		28	.098	.904	0	
6	.445	.821	59	ρ''	$-0''.001$	$-0''.001$		37	.118	.910	7	
7 13 25	95.391	104.813	7 15 8					7 16 51	105.104	94.897	7 18 14	
7 12 42.6	95.424	104.773	7 14 45.4		$B=29^{in}.8$	$T=55^\circ.0$		7 16 26.2	105.092	94.905	7 17 57.2	
	$''$			Star	y	x	Mag.		$''$			
	$y=-46.428$			a	...	...	8.2		$x=-50.589$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
7 13 44.0	$\rho=-\ 0.017$							7 17 11.7	$\rho=-\ 0.015$			
$\Delta t=-15.4$	$\iota=-\ 0.025$							$\Delta t=-15.4$	$\iota=+\ 0.025$			
7 13 28.6	$y_0=-46.470$			Eros s. p.			....	7 16 56.3	$x_0=-50.579$			
130.					NOVEMBER 22.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 54 1	92.969	107.227	7 55 45	τ	$-1^h\ 34^m.1$	$-1^h\ 30^m.5$		7 57 29	107.179	92.748	7 59 15	
21	.951	.254	59	ζ	$21^\circ.4$	$20^\circ.9$		46	.178	.732	41	
28	.929	.265	8	ρ'	$-0''.022$	$-0''.021$		2	.198	.718	52	
39	.914	.270	28	ρ''	$-0''.001$	$-0''.001$		17	.247	.714	5	
7 54 49	92.889	107.299	7 56 36					7 58 29	107.261	92.708	8 0 14	
7 54 27.6	92.930	107.263	7 56 11.2		$B=29^{in}.8$	$T=55^\circ.0$		7 58 0.6	107.213	92.724	7 59 49.4	
	$''$			Star	y	x	Mag.		$''$			
	$y=-71.179$			a	..	..	8.2		$x=-71.954$			Field taken at $8^h\ 1^m$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
7 55 19.4	$\rho=-\ 0.023$			b	$-50''$	$+55''$	9.4	7 58 55.0	$\rho=-\ 0.022$			
$\Delta t=-15.4$	$\iota=-\ 0.025$							$\Delta t=-15.4$	$\iota=+\ 0.026$			
7 55 4.0	$y_0=-71.227$			Eros s. p.			9.3	7 58 39.6	$x_0=-71.950$			
131.					NOVEMBER 27.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 44 22	103.599	96.443	5 45 45	τ	$-3^h\ 19^m.1$	$-3^h\ 16^m.3$		5 47 26	99.502	100.461	5 48 23	
39	.580	.501	4	ζ	$36^\circ.5$	$36^\circ.0$		38	.509	.438	36	
49	.567	.518	13	ρ'	$+0''.015$	$+0''.001$		47	.503	.421	42	
59	.561	.517	21	ρ''	$0''.000$	$0''.000$		58	.512	.415	49	
5 45 8	103.553	96.533	5 46 33					5 48 8	99.551	100.403	5 48 56	
5 44 47.4	103.572	96.502	5 46 11.2		$B=29^{in}.6$	$T=46^\circ.0$		5 47 47.4	99.515	100.428	5 48 41.2	
	$''$			Star	y	x	Mag.		$''$			
	$y=+35.111$			a	...	...	11.0		$x=+\ 4.534$			Field taken at $5^h\ 48^m$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 45 29.3	$\rho=+\ 0.015$			b	$+120''$	$-120''$	10.5	5 48 14.3	$\rho=+\ 0.001$			
$\Delta t=-14.5$	$\iota=+\ 0.005$			c	$-\ 20$	-120	11.0	$\Delta t=-14.5$	$\iota=-\ 0.026$			
5 45 14.8	$y_0=+35.131$			Eros n. f.			9.3	5 47 59.8	$x_0=+\ 4.509$			
132.					NOVEMBER 27.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 56 30	103.137	96.941	5 57 44	τ	$-3^h\ 7^m.0$	$-3^h\ 4^m.3$		5 59 8	99.735	100.395	6 0 21	
42	.122	.920	58	ζ	$34^\circ.6$	$34^\circ.2$		31	.714	.430	35	
53	.100	.942	9	ρ'	$+0''.013$	$-0''.001$		42	.700	.421	45	
1	.097	.964	16	ρ''	$0''.000$	$0''.000$		49	.692	.434	55	
5 57 10	103.091	96.984	5 58 24					5 59 58	99.678	100.442	6 1 4	
5 56 51.2	103.109	96.950	5 58 6.2		$B=29^{in}.6$	$T=46^\circ.0$		5 59 37.6	99.704	100.424	6 0 44.0	
	$''$			Star	y	x	Mag.		$''$			
	$y=+30.586$			a	...	...	11.0		$x=-\ 3.575$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 57 28.7	$\rho=+\ 0.013$							6 0 10.8	$\rho=-\ 0.001$			
$\Delta t=-14.5$	$\iota=-\ 0.001$							$\Delta t=-14.5$	$\iota=-\ 0.021$			
5 57 14.2	$y_0=+30.598$			Eros s. f.			....	5 59 56.3	$x_0=-\ 3.597$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
133.					1900 November 27.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 39 15	101.118	98.883	7 40 33	τ	$-1^{h}\ 23^{m}.8$	$-1^{h}\ 19^{m}.9$	7 42 37	107.293	92.578	7 44 54	
31	.134	.897	46	ζ	19°.4	18°.8	52	.284	.649	13	
44	.152	.825	0				6	.298	.612	24	
54	.164	.838	12	ρ'	$-0''.004$	$-0''.021$	23	.273	.578	34	
7 40 1	101.180	98.825	7 41 30	ρ''	$-0''.001$	$0''.000$	7 43 39	107.386	92.543	7 45 45	
7 39 41.0	101.150	98.854	7 41 0.2	$B=29^{in}.7$		$T=44^{\circ}.0$	7 43 7.4	107.307	92.592	7 45 22.0	
7 40 20.6 $\Delta t=-14.5$	″ $y=-11.402$ $\rho=-0.005$ $\iota=-0.023$			*Star* *a*	*y* ...	*x* *Mag.* ... 10.9	7 44 14.7 $\Delta t=-14.5$	″ $x=-73.077$ $\rho=-0.021$ $\iota=+0.005$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
7 40 6.1	$y_0=-11.430$			Eros s. p.		....	7 44 0.2	$x_0=-73.093$			
134.					November 27.						
h m s	r	r	h m s				h m s	r	r	h m s	Parallel of micrometer tested on equatorial stars.
7 47 9	97.969	101.998	7 48 45	τ	$-1^{h}\ 15^{m}.7$	$-1^{h}\ 11^{m}.8$	7 50 56	106.945	93.174	7 52 40	
25	.999	102.001	8	ζ	18°.3	17°.9	29	.972	.198	52	
42	97.991	101.993	24				42	.964	.212	6	
57	98.015	.987	34	ρ'	$+0''.006$	$+0''.020$	54	.950	.202	16	
7 48 10	98.031	101.998	7 49 42	ρ''	$+0''.001$	$0''.000$	7 52 2	106.944	93.227	7 53 29	
7 47 40.6	98.001	101.995	7 49 18.6	$B=29^{in}.7$		$T=44^{\circ}.0$	7 51 36.6	106.955	93.203	7 53 4.6	
7 48 29.6 $\Delta t=-14.5$	″ $y=+19.834$ $\rho=+0.007$ $\iota=+0.021$			*Star* *a* *b* *c*	*y* $+45''$ $+135$ ...	*x* *Mag.* $+180''$ 10.9 -20 .... 11.0	7 52 20.6 $\Delta t=-14.5$	″ $x=+68.294$ $\rho=+0.020$ $\iota=-0.005$			Field taken at $7^{h}\ 55^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
7 48 15.1	$y_0=+19.862$			Eros n. f.		9.3	7 52 6.1	$x_0=+68.309$			
135.					November 27.						
h m s	r	r	h m s								Very hazy. Comparison star went out at $15^{h}\ 56^{m}$ and could not take $\Delta\delta$.
15 52 55	106.015	94.042	15 54 31	τ	$+6^{h}\ 51^{m}.6$						
9	105.990	93.970	46	ζ	67°.5						
21	106.020	94.023	59								
30	106.030	.043	9	ρ'	$+0''.084$						
15 53 39	105.994	94.067	15 55 17	ρ''	$-0''.062$						
15 53 18.8	106.010	94.029	15 54 56.4	$B=29^{in}.9$		$T=38^{\circ}.0$					
15 54 7.6 $\Delta t=-14.4$	″ $y=+59.499$ $\rho=+0.022$ $\iota=-0.065$			*Star* *a*	*y* ...	*x* *Mag.* ... 10.9					Focal reading $2^{in}.48$. Power 388. Seeing 1. Weight 1.
15 53 53.2	$y_0=+59.456$			Eros s. f.		....					
136.					November 30.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 30 30	98.120	101.969	5 32 18	τ	$-3^{h}\ 18^{m}.8$	$-3^{h}\ 15^{m}.4$	5 34 17	107.532	92.607	5 35 33	
50	.101	102.000	41	ζ	36°.4	35°.9	32	.500	.650	45	
59	.131	.020	49				40	.469	.670	55	
13	.143	.013	55	ρ'	$-0''.009$	$+0''.021$	50	.447	.679	59	
5 31 37	98.138	102.002	5 33 11	ρ''	$0''.000$	$0''.000$	5 34 59	107.439	92.685	5 36 6	
5 31 1.8	98.127	102.001	5 32 46.8	$B=29^{in}.9$		$T=40^{\circ}.0$	5 34 39.6	107.477	92.658	5 35 51.6	
5 31 54.3 $\Delta t=-15.5$	″ $y=-19.239$ $\rho=-0.009$ $\iota=+0.059$			*Star* *b*	*y* ...	*x* *Mag.* ... 11.2	5 35 15.6 $\Delta t=-15.5$	″ $x=+73.593$ $\rho=+0.021$ $\iota=+0.015$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
5 31 38.8	$y_0=-19.189$			Eros n. p.		....	5 35 0.1	$x_0=+73.629$			

137. 1900 November 30.

t	*Δα* cos *δ*	*Δα′* cos *δ*	*t′*		*A*	*D*	*t*	*Δδ*	*Δδ′*	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 37 48	88.542	111.021	5 40 10	*τ*	$-3^{h}\ 11^{m}.3$	$-3^{h}\ 7^{m}.7$	5 41 48	104.371	95.788	5 43 8	
7	.631	.411	20	*ζ*	35°.2	34°.7	4	.390	.776	27	
17	.662	.439	29	*ρ′*	+0″.049	+0″.012	13	.378	.761	36	
25	.639	.423	42	*ρ″*	0″.000	0″.000	33	.304	.820	54	
5 38 30	88.640	111.435	5 40 49				5 42 44	104.323	95.830	5 44 4	
5 38 13.4	88.623	111.346	5 40 30.0		$B=29^{in}.9$	$T=39°.0$	5 42 15.6	104.353	95.795	5 43 37.8	
	″			*Star*	*y*	*x* *Mag.*		″			Field taken at $5^{h}\ 46^{m}$ Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
	y = +112.845			*a*	...	.. 9.4		x = +42.500			
5 39 21.7	$ρ$ = + 0.049			*b*	+120″	−30″ 11.2	5 42 56.7	$ρ$ = + 0.012			
$Δt$ = −15.5	$ι$ = + 0.034						$Δt$ = −15.5	$ι$ = − 0.082			
5 39 6.2	y_0 = +112.928			Eros n. f.		9.3	5 42 41.2	x_0 = +42.430			

138. November 30.

t	*Δα* cos *δ*	*Δα′* cos *δ*	*t′*		*A*	*D*	*t*	*Δδ*	*Δδ′*	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 52 13	94.068	106.021	7 54 26	*τ*	$-0^{h}\ 56^{m}.3$	$-0^{h}\ 52^{m}.1$	7 56 53	103.362	96.557	7 58 35	
38	.140	.044	42	*ζ*	15°.4	15°.0	15	.428	.539	47	
49	.111	.057	2	*ρ′*	−0″.018	−0″.010	28	.435	.514	56	
17	.100	.077	14	*ρ″*	0″.000	−0″.001	42	.459	.509	2	
7 53 31	94.076	106.061	7 55 26				7 57 56	103.472	96.500	7 59 11	
7 52 53.6	94.099	106.052	7 54 58.0		$B=29^{in}.9$	$T=38°.0$	7 57 26.8	103.431	96.524	7 58 54.2	
	″			*Star*	*y*	*x* *Mag.*		″			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
	y = −59.360							x = −34.300			
7 53 55.8	$ρ$ = − 0.018			*b*	...	... 11.2	7 58 10.5	$ρ$ = − 0.011			
$Δt$ = −15.5	$ι$ = − 0.007						$Δt$ = −15.5	$ι$ = + 0.014			
7 53 40.3	y_0 = −59.385			Eros s. p.		....	7 57 55.0	x_0 = −34.297			

139. November 30.

t	*Δα* cos *δ*	*Δα′* cos *δ*	*t′*		*A*	*D*	*t*	*Δδ*	*Δδ′*	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
8 3 42	107.265	92.885	8 5 21	*τ*	$-0^{h}\ 45^{m}.3$	$-0^{h}\ 48^{m}.7$	8 0 25	93.899	106.378	8 1 49	
58	.279	.872	33	*ζ*	14°.3	14°.6	41	.802	.399	10	
	.264	.912	43	*ρ′*	+0″.021	−0″.019	53	.787	.418	20	
19	.251	.933	57	*ρ″*	−0″.001	+0″.001	3	.772	.445	29	
8 4 27	107.261	92.947	8 6 7				8 1 11	93.761	106.449	8 2 43	
8 4 6.5	107.264	92.910	8 5 44.2		$B=29^{in}.9$	$T=38°.0$	8 0 50.6	93.804	106.418	8 2 18.2	
	″			*Star*	*y*	*x* *Mag.*		″			Field taken at $8^{h}\ 5^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
	y = +71.284			*a*	...	.. 9.6		x = −62.643			
8 4 55.4	$ρ$ = + 0.020			*b*	+150″	−20″ 11.2	8 1 34.4	$ρ$ = − 0.018			
$Δt$ = −15.5	$ι$ = − 0.014						$Δt$ = −15.5	$ι$ = − 0.016			
8 4 39.9	y_0 = +71.290			Eros s. f.		9.3	8 1 18.9	x_0 = −62.677			

140. November 30.

t	*Δα* cos *δ*	*Δα′* cos *δ*	*t′*		*A*	*D*	*t*	*Δδ*	*Δδ′*	*t′*	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
14 56 2	94.330	105.752	14 57 50	*τ*	$+6^{h}\ 8^{m}.5$	$+6^{h}\ 12^{m}.9$	15 0 27	117.810	82.214	15 2 21	Seeing hazy.
29	.364	.738	8	*ζ*	62°.2	62°.8	45	.748	.230	39	
39	.403	.758	22	*ρ′*	−0″.062	−0″.097	58	.767	.224	49	
49	.375	.771	37	*ρ″*	−0″.076	−0″.027	8	.827	.200	58	
14 57 1	94.315	105.761	14 58 48				15 1 19	117.780	82.182	15 3 12	
14 56 36.0	94.357	105.756	14 58 21.0		$B=29^{in}.9$	$T=31°.0$	15 0 55.4	117.786	82.210	15 2 47.8	
	″			*Star*	*y*	*x* *Mag.*		″			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
	y = −56.609			*a*	...	... 11.0		x = −176.674			
14 57 28.5	$ρ$ = − 0.138						15 1 51.6	$ρ$ = − 0.124			
$Δt$ = −15.7	$ι$ = − 0.114						$Δt$ = −15.7	$ι$ = + 0.039			
14 57 12.8	y_0 = −56.861			Eros s. p.		9.3	15 1 35.9	x_0 = 176.759			

141. 1900 NOVEMBER 30.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
15 13 44	105.988	93.948	15 15 13	τ	$+6^h\ 26^m.0$	$+6^h\ 21^m.6$	15 9 6	81.591	118.680	15 11 11	
58	106.012	.987	29	ζ	64°.6	64°.0	26	.572	.731	28	
10	106.000	93.988	42	ρ'	0″.074	0″.112	36	.558	.771	40	
20	105.991	94.000	55	ρ''	0″.107	0″.031	(44)	.551	.748	50	
15 14 29	106.002	94.026	15 16 15				15 9 53	81.532	118.792	15 12 0	
15 14 8.2	105.999	93.990	15 15 42.8		$B=29^{in}.9$	$T=31°.0$	15 9 33.0	81.561	118.744	15 11 37.8	

		″	Star	y	x	Mag.			″	
	y	59.638	a	...	...	11.0		x =	184.655	Focal reading $2^{in}.48$.
15 14 55.5	ρ	0.181					15 10 35.4	ρ =	0.143	Power 388.
Δt 15.7	ι	0.136					Δt = 15.7	ι =	−0.041	Seeing 2.
										Weight 2.
15 14 39.8	y_0 =	59.955	Eros s. p.			....	15 10 19.7	x_0 =	184.757	

142. DECEMBER 1.

h m s	r	r	h m s				h m s	r	r	h m s	
5 25 55	113.400	86.748	5 27 34	τ	$3^h\ 19^m.2$	$3^h\ 15^m.9$	5 28 59	89.967	109.900	5 31 0	
15	.358	.737	44	ζ	36°.6	36°.0	12	.954	.850	19	
28	.342	.751	52	ρ'	+0″.058	−0″.028	23	.950	.861	31	
36	.353	.762	4	ρ''	0″.000	0″.000	35	89.978	.834	39	
5 26 41	113.361	86.771	5 28 13				5 29 52	90.044	109.823	5 31 48	
5 26 23.0	113.363	86.754	5 27 53.4		$B=29^{in}.9$	$T=46°.0$	5 29 24.2	89.979	109.854	5 31 27.4	

		″	Star	y	x	Mag.			″	
	y =	+132.143	a	...	...	9.4		x =	−98.701	Focal reading $2^{in}.48$.
5 27 8.2	ρ =	+0.058					5 30 25.8	ρ =	−0.028	Power 388.
Δt = 16.1	ι =	+0.080					Δt = 16.1	ι =	0.102	Seeing 3.
										Weight 3.
5 26 52.1	y_0 =	+132.281	Eros n. f.			9.3	5 30 9.7	x_0 =	−98.627	

143. DECEMBER 1

h m s	r	r	h m s				h m s	r	r	h m s	
5 36 48	86.992	113.084	5 38 34	τ	$3^h\ 8^m.2$	$3^h\ 11^m.6$	5 33 41	109.670	90.396	5 35 3	
2	.984	.062	48	ζ	34°.7	35°.3	56	.664	.428	16	
10	.970	.050	59	ρ'	−0″.054	−0″.027		.652	.440	23	
18	.974	.074	7	ρ''	0″.000	0″.000	14	.647	.477	33	
5 37 28	86.972	113.063	5 39 14				5 34 21	109.631	90.499	5 35 44	
5 37 9.2	86.978	113.067	5 38 56.4		$B=29^{in}.9$	$T=46°.0$	5 34 3.0	109.653	90.448	5 35 23.8	

		″	Star	y	x	Mag.			″	
	y =	−129.561	a	...	...	9.4		x =	−95.374	Focal reading $2^{in}.48$
5 38 2.8	ρ	−0.054					5 34 43.4	ρ =	−0.027	Power 388
Δt = 16.1	ι =	−0.068					Δt = 16.1	ι =	+0.098	Seeing 3.
										Weight 3.
5 37 46.7	y_0 =	−129.683	Eros n. f.			....	5 34 27.3	x_0 =	−95.303	

144. DECEMBER 1.

h m s	r	r	h m s				h m s	r	r	h m s	
6 55 38	111.202	88.896	6 57 32	τ	$1^h\ 48^m.9$	$1^h\ 45^m.2$	6 59 41	97.048	102.958	7 1 7	
4	.228	.909	44	ζ	22°.3	21°.8	55	.061	.934	20	
15	.229	.990	3	ρ'	−0″.036	−0″.008	10	.077	.929	32	
28	.234	.950	14	ρ''	0″.001	−0″.002	19	.080	.943	41	
6 56 37	111.242	88.939	6 58 25				7 0 32	97.089	102.931	7 1 59	
6 56 12.4	111.227	88.937	6 57 59.6		$B=29^{in}.9$	$T=43°.0$	7 0 7.4	97.071	102.939	7 1 31.8	

		″	Star	y	x	Mag.			″	
	y	−110.694	a	...	...	9.4		x =	−29.141	Focal reading $2^{in}.48$
6 57 6.0	ρ	−0.037					7 0 49.6	ρ =	−0.010	Power 388
Δt 16.1	ι	−0.014					Δt = 16.1	ι =	0.045	Seeing 3.
										Weight 3.
6 56 49.9	y_0 =	−110.745	Eros n. f.			....	7 0 33.5	x_0 =	−29.100	

145.

1900 December 1.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	*t′*		*A*	*D*		*t*	$\Delta\delta$	$\Delta\delta'$	*t′*	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
7 12 5	89.227	110.812	7 13 48	τ	$-1^h\ 32^m.6$	$-1^h\ 36^m.3$		7 8 38	102.345	97.839	7 9 55	Parallel of micrometer tested on equatorial stars in the meridian.
18	.245	.787	10	ζ	20°.0	20°.5		58	.346	.850	(8)	
27	.251	.782	24					11	.306	.880	20	
35	.263	.777	40	ρ'	+0″.034	+0″.006		20	.302	.889	33	
7 12 50	89.260	110.739	7 14 54	ρ''	0″.000	+0″.002		7 9 28	102.271	97.899	7 10 48	
7 12 27.0	89.249	110.781	7 14 23.2		$B=29^{in}.9$	$T=43°.0$		7 9 7.0	102.314	97.871	7 10 20.8	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=+106.930$			*a*	...	...	9.4		$x=+22.064$			
7 13 25.1	$\rho=+\ 0.034$							7 9 43.9	$\rho=+\ 0.008$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
$\Delta t=-16.1$	$\iota=+\ 0.008$							$\Delta t=-16.1$	$\iota=-\ 0.041$			
7 13 9.0	$y_0=+106.972$			Eros n. f.			9.3	7 9 27.8	$x_0=+22.031$			

146.

December 1.

h m s	r	r	h m s					h m s	r	r	h m s	
14 57 8	107.048	93.050	14 59 3	τ	$+6^h\ 14^m.0$	$+6^h\ 19^m.0$		15 2 4	97.022	103.336	15 4 4	
24	.025	.037	15	ζ	63°.1	63°.8		23	97.009	.363	22	
40	.000	.032	32					43	96.953	.372	33	
49	.012	.051	0	ρ'	+0″.079	−0″.019		56	.943	.384	44	
14 57 59	107.014	93.031	15 0 15	ρ''	−0″.013	+0″.035		15 3 17	96.897	103.391	15 4 54	
14 57 36.0	107.020	93.040	14 59 37.0		$B=29^{in}.9$	$T=34°.0$		15 2 40.6	96.965	103.369	15 4 31.4	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=+69.426$			*a*	...	...	10.5		$x=-31.803$			
14 58 36.5	$\rho=+\ 0.066$							15 3 36.0	$\rho=+\ 0.016$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
$\Delta t=-16.3$	$\iota=-\ 0.019$							$\Delta t=-16.3$	$\iota=-\ 0.048$			
14 58 20.2	$y_0=+69.473$			Eros s. f.			....	15 3 19.7	$x_0=-31.835$			

147.

December 1.

h m s	r	r	h m s					h m s	r	r	h m s	
15 10 6	90.649	109.424	15 11 58	τ	$+6^h\ 27^m.1$	$+6^h\ 22^m.9$		15 6 11	108.820	91.460	15 7 53	
31	.667	.402	11	ζ	64°.9	64°.4		31	.757	.489	11	
45	.700	.382	35					45	.732	.507	24	
54	.688	.361	50	ρ'	−0″.116	+0″.053		53	.714	.518	35	
15 11 3	90.684	109.419	15 13 26	ρ''	−0″.048	0″.051		15 7 0	108.707	91.540	15 8 48	
15 10 39.8	90.678	109.398	15 12 36.0		$B=29^{in}.9$	$T=34°.0$		15 6 40.0	108.746	91.503	15 8 22.2	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-92.966$			*a*	−150″	+105″	10.5		$x=+85.630$			Field taken at $15^h\,15^m$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
15 11 37.9	$\rho=\ \ 0.068$			*b*	...	...	10.0	15 7 31.1	$\rho=+\ 0.002$			
$\Delta t=-16.3$	$\iota=+\ 0.060$							$\Delta t=-16.3$	$\iota=+\ 0.066$			
15 11 21.6	$y_0=-92.974$			Eros n. p.			9.3	15 7 14.8	$x_0=+85.698$			

148.

December 2.

h m s	r	r	h m s					h m s	r	r	h m s	
5 19 12	101.345	98.723	5 20 34	τ	$3^h\ 21^m.8$	$-3^h\ 18^m.8$		5 22 13	94.123	106.139	5 23 36	
28	.361	.736	45	ζ	36°.8	36°.4		24	.102	.114	49	
37	.356	.712	54					31	.089	.121	2	
44	.349	.721	0	ρ'	−0″.006	−0″.017		38	.062	.136	13	
5 19 54	101.355	98.722	5 21 19	ρ''	0″.000	0″.000		5 22 44	94.056	106.152	5 24 22	
5 19 35.0	101.353	98.723	5 20 54.4		$B=30^{in}.0$	$T=49°.0$		5 22 30.0	94.086	106.132	5 24 0.4	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-13.061$			*a*	...	...	11.2		$x=-59.822$			Field taken at $5^h\,30^m$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 20 14.7	$\rho=-\ 0.006$			*b*	−75″	−165″	11.4	5 23 15.2	$\rho=-\ 0.017$			
$\Delta t=-16.7$	$\iota=-\ 0.046$			*c*	−90	−255	10.9	$\Delta t=\ 16.7$	$\iota=-\ 0.011$			
5 19 58.0	$y_0=-13.113$			Eros s. p.			9.3	5 22 58.5	$x_0=\ 59.828$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
149.					1900 DECEMBER 2.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 32 28	101.240	98.843	5 33 54	τ	$-3^{h}\ 8^{m}.4$	$-3^{h}\ 5^{m}.1$	5 35 45	93.520	106.340	5 37 16	
42	.230	.881	4	ζ	34°.8	34°.2	59	.542	.312	31	
52	.241	.891	14	ρ'	+0″.005	+0″.018	9	.571	.304	40	
13	.214	.928	27	ρ''	0″.000	0″.000	17	.561	.395	49	
5 33 22	101.200	98.891	5 34 46				5 36 26	93.578	106.279	5 37 57	
5 32 55.4	101.225	98.887	5 34 17.0		$B=30^{in}.0$	$T=49°.0$	5 36 7.2	93.554	106.326	5 37 38.6	
	″			Star	y	x Mag.		″			
	y =+ 11.611			b	...	... 11.4		x =+63.427			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 33 36.2	ρ =+ 0.005						5 36 52.9	ρ =+ 0.018			
Δt=−16.7	ι =+ 0.048						Δt= −16.7	ι = − 0.008			
5 33 19.5	y_0=+11.664			Eros n. f.		....	5 36 36.2	x_0=+63.437			
150.					DECEMBER 2.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 42 34	98.294	101.795	5 44 15	τ	$-2^{h}\ 58^{m}.1$	$-3^{h}\ 1^{m}.6$	5 39 10	107.278	92.625	5 40 45	
3	.281	.800	28	ζ	33°.1	33°.7	32	.302	.607	59	
15	.330	.836	35	ρ'	−0″.007	−0″.021	43	.315	.582	8	
27	.293	.814	46	ρ''	0″.000	0″.000	51	.347	.598	21	
5 43 40	98.311	101.827	5 44 54				5 39 59	107.348	92.579	5 41 28	
5 43 11.8	98.302	101.814	5 44 35.6		$B=30^{in}.0$	$T=49°.0$	5 39 39.0	107.318	92.598	5 41 8.2	
	″			Star	y	x Mag.		″			
	y =−17.441			a	...	... 11.2		x =−73.101			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 43 53.7	ρ =− 0.007						5 40 23.6	ρ =− 0.021			
Δt=−16.7	ι =− 0.052						Δt=−16.7	ι =+ 0.011			
5 43 37.0	y_0=−17.500			Eros s. p.		....	5 40 6.9	x_0=−73.111			
151.					DECEMBER 2.						
h m s	r	r	h m s				h m s	r	r	h m s	
15 16 3	83.003	117.155	15 17 54	τ	$+6^{h}\ 37^{m}.1$	$+6^{h}\ 33^{m}.0$	15 12 18	101.236	98.689	15 13 36	
27	.038	.163	9	ζ	66°.4	65°.9	31	.272	.663	48	
36	.011	.139	18	ρ'	−0″.228	0″.009	38	.262	.647	59	
45	.022	.149	29	ρ''	−0″.011	−0″.110	45	.292	.628	7	
15 16 55	83.040	117.157	15 18 40				15 12 53	101.298	98.622	15 14 14	
15 16 33.2	83.023	117.153	15 18 18.0		$B=30^{in}.0$	$T=38°.0$	15 12 37.0	101.272	98.650	15 13 56.8	
	″			Star	y	x Mag.		″			
	y = 169.493			a	...	... 11.0		x =−13.021			Field taken at $15^{h}\ 20^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
15 17 25.6	ρ =− 0.239			b	−135″	−5″ 11.9	15 13 16.9	ρ =− 0.119			
Δt=− 17.0	ι =− 0.013						Δt= −17.0	ι =+ 0.127			
15 17 8.6	y_0= −169.745			Eros s. p.		9.3	15 12 59.9	x_0=−13.013			
152.					DECEMBER 8.						
h m s	r	r	h m s				h m s	r	r	h m s	
6 32 21	99.617	100.492	6 33 15	τ	$-1^{h}\ 45^{m}.3$	$-1^{h}\ 42^{m}.1$	6 35 3	91.548	108.748	6 36 23	*Lamp burned out: observation interrupted for a moment.
32	.600	.487	(25)	ζ	21°.0	20°.5	15	.512	.779	37	
42	.599	.502	36	ρ'	−0″.001	0″.025	25	.488	.798	36 47	
47	.608	.527	44	ρ''	−0″.001	0″.000	35	.461	.812	*38 13	
6 32 55	99.601	100.519	6 33 54				6 35 42	91.446	108.893	6 38 30	
6 32 39.4	99.605	100.505	6 33 34.8		$B=29^{in}.8$	$T=38°.0$	6 35 24.0	91.491	108.806	6 37 18.0	
	″			Star	y	x Mag.		″			
	y = −4.470			a	...	... 11.2		x = 85.988			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
6 33 7.3	ρ = 0.002						6 36 21.0	ρ = 0.025			
Δt= −20.9	ι = 0.034						Δt=−20.9	ι = 0.002			
6 32 46.4	y_0= −4.506			Eros s. p.		....	6 36 0.1	x_0= 86.011			

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
153.					1900 December 8.						
h m s	r	r	h m s				h m s	r	r	h m s	
6 43 0	93.988	106.126	6 44 55	τ	$-1^h\ 33^m.8$	$-1^h\ 37^m.4$	6 39 46	110.689	89.533	6 41 19	
22	94.012	.161	22	ζ	19°.2	19°.8	58	.738	.521	29	
34	93.993	.148	29	ρ′	+0″.019	+0″.030	11	.701	.614	45	
49	94.002	.113	56	ρ″	+0″.001	+0″.001	25	.623	.626	57	
6 43 56	93.994	106.136	6 46 4				6 40 41	110.607	89.642	6 42 12	
6 43 32.2	93.998	106.137	6 45 33.2		$B=29^{in}.8$	$T=38°.0$	6 40 12.2	110.672	89.587	6 41 44.4	
	″			Star	y	x Mag.		″			
	y =+60.284			a	+75″	+180″ 11.2		x =+104.710			Field taken at $6^h 48^m$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
6 44 32.7	ρ =+ 0.020			b	..	... 10.2	6 40 58.3	ρ =+ 0.031			
Δt=−20.9	ι =+ 0.039						Δt=−20.9	ι =− 0.023			
6 44 11.8	y_0 =+60.343			Eros n. f.		9.3	6 40 37.4	x_0=+104.718			
154.					December 8.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 21 22	106.361	93.708	7 22 53	τ	$-0^h\ 55^m.8$	$-0^h\ 52^m.5$	7 24 38	93.551	106.364	7 26 6	
39	.352	.754	12	ζ	13°.5	13° 1	52	.542	.383	20	
47	.363	.720	19	ρ′	+0″.019	+0″.019	2	.568	.284	41	
0	.370	.664	26	ρ″	+0″.001	0″.000	12	.588	.261	56	
7 22 6	106.372	93.698	7 23 38				7 25 26	93.626	106.244	7 27 4	
7 21 46.8	106.364	93.709	7 23 17.6		$B=29^{in}.8$	$T=37°.0$	7 25 2.0	93.575	106.307	7 26 37.4	
	″			Star	y	x Mag.		″			
	y =+62.846							x =+63.228			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
7 22 32.2	ρ =+ 0.020			b	...	... 10.2	7 25 49.7	ρ =+ 0.019			
Δt=−20.9	ι =+ 0.017						Δt=−20.9	ι =− 0.016			
7 22 11.3	y_0=+62.883			Eros n. f.		....	7 25 28.8	x_0=+63.231			
155.					December 8.						
h m s	r	r	h m s				h m s	r	r	h m s	
14 19 3	109.785	90.332	14 20 36	τ	$+6^h\ 3^m.0$	$+5^h\ 59^m.8$	14 15 52	95.458	104.872	14 17 19	Seeing very bad.
21	.782	.349	51	ζ	62°.7	62°.3	10	.412	.904	41	
29	.823	.295	10	ρ′	−0″.107	−0″.025	16	.394	.937	55	
35	.799	.372	25	ρ″	−0″.023	−0″.042	25	.368	.952	4	
14 19 44	109.788	90.325	14 21 39				14 16 36	95.340	104.968	14 18 11	
14 19 26.4	109.795	90.335	14 21 8.2		$B=29^{in}.6$	$T=34°.0$	14 16 15.8	95.394	104.927	14 17 50.0	
	″			Star	y	x Mag.		″			
	y =−96.640			a	...	... 10.0		x =−47.342			Field taken at $14^h 23^m$. Focal reading $2^{in}.48$. Power 388. Seeing 1. Weight 2.
14 20 17.3	ρ =− 0.130			b	+120″	−100″ 11.8	14 17 2.9	ρ =− 0.067			
Δt=−21.1	ι =− 0.034						Δt=−21.1	ι =+ 0.065			
14 19 56.2	y_0=−96.804			Eros s. p.		9.3	14 16 41.8	x_0= −47.344			
156.					December 10.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 38 32	103.864	96.363	5 40 18	τ	$-2^h\ 31^m.8$	$-2^h\ 35^m.1$	5 35 42	92.740	107.498	5 36 49	
48	.878	.332	34	ζ	28°.6	29°.2	55	.719	.516	2	
56	.879	.307	51	ρ′	−0″.014	−0″.022	2	.682	.532	8	
6	.890	.321	0	ρ″	0″.000	0″.000	8	.674	.544	18	
5 39 26	103.934	96.311	5 41 19				5 36 16	92.668	107.558	5 37 28	
5 38 57.6	103.889	96.327	5 40 48.4		$B=30^{in}.0$	$T=32°.0$	5 36 0.6	92.697	107.530	5 37 9.0	
	″			Star	y	x Mag.		″			
	y =−37.554			a	...	... 11.0		x =−73.662			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
5 39 53.0	ρ =− 0.014						5 36 34.8	ρ = 0.022			
Δt=−21.6	ι =− 0.044						Δt= 21.6	ι =− 0.023			
5 39 31.4	y_0 =−37.612			Eros s. p.		....	5 36 13.2	x_0= −73.661			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
157.					1900 DECEMBER 10.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 42 36	96.284	103.831	5 43 48	τ	$-2^{h}\ 28^{m}.0$	$2^{h}\ 24^{m}.6$		5 45 49	108.292	91.648	5 47 24	
48	.282	.768	14	ζ	28°.0	27°.4		13	.364	.618	37	
58	.271	.850	25					26	.342	.599	44	
5	.272	.837	37	ρ′	−0″.014	−0″.024		37	.368	.581	57	
5 43 16	96.280	103.851	5 44 45	ρ″	0″.000	0″.000		5 46 44	108.382	91.595	5 48 6	
5 42 56.6	96.278	103.827	5 44 21.8		$B=30^{in}.0$	$T=32°.0$		5 46 21.8	108.350	91.608	5 47 45.6	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -37.490$			*a*	...	...	11.0		$x = -83.142$			
5 43 39.2	$\rho = -\ 0.014$							5 47 3.7	$\rho = -\ 0.024$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
$\Delta t=-21.6$	$\iota = -\ 0.045$							$\Delta t=-21.6$	$\iota = +\ 0.020$			
5 43 17.6	$y_0=-37.549$			Eros s. p.			....	5 46 42.1	$x_0=-83.146$			
158.					DECEMBER 10.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 52 44	103.191	96.950	5 54 22	τ	$-2^{h}\ 17^{m}.6$	$-2^{h}\ 21^{m}.2$		5 49 8	88.642	111.274	5 50 51	
1	.182	.934	37	ζ	26°.2	26°.8		20	.663	.277	9	
13	.167	.951	49					32	.672	.256	20	
24	.180	.954	58	ρ′	−0″.011	+0″.033		44	.691	.240	29	
5 53 32	103.167	96.967	5 55 8	ρ″	+0″.001	0″.000		5 49 54	88.698	111.228	5 51 37	
5 53 10.8	103.177	96.951	5 54 46.8		$B=30^{in}.0$	$T=31°.0$		5 49 31.6	88.673	111.255	5 51 17.2	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -30.919$			*a*	+15″	+200″	11.0		$x = +112.145$			Field taken at $5^{h}\ 56^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 53 58.8	$\rho = -\ 0.010$			*b*	..	...	11.0	5 50 24.4	$\rho = \ 0.033$			
$\Delta t=-21.6$	$\iota = +\ 0.057$							$\Delta t=-21.6$	$\iota = +\ 0.017$			
5 53 37.2	$y_0=-30.872$			Eros n. p.			9.3	5 50 2.8	$x_0=+112.195$			
159.					DECEMBER 10.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 59 12	102.083	98.012	7 0 13	τ	$-1^{h}\ 11^{m}.4$	$-1^{h}\ 14^{m}.7$		6 55 36	94.919	104.946	6 57 9	Parallel of micrometer tested on equatorial stars.
27	.064	.023	22	ζ	15°.4	15°.9		0	.948	.935	20	
34	.068	.014	29					13	.962	.912	29	
44	.061	.030	36	ρ′	−0″.006	+0″.015		25	94.991	.909	35	
6 59 49	102.067	98.025	7 0 46	ρ″	0″.000	0″.000		6 56 35	95.000	104.894	6 57 41	
6 59 33.2	102.069	98.021	7 0 29.2		$B=30^{in}.0$	$T=30°.0$		6 56 9.8	94.964	104.919	6 57 26.8	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -20.102$								$x = +49.438$			
7 0 1.2	$\rho = \ 0.006$			*b*	...	...	11.0	6 56 48.3	$\rho = +\ 0.015$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
$\Delta t=-21.7$	$\iota = +\ 0.014$							$\Delta t=-21.7$	$\iota = +\ 0.007$			
6 59 39.5	$y_0=-20.094$			Eros n. p.			....	6 56 26.6	$x_0=+49.460$			
160.					DECEMBER 10.							
h m s	r	r	h m s					h m s	r	r	h m s	
14 3 34	107.281	92.928	14 5 39	τ	$+5^{h}\ 54^{m}.7$	$+5^{h}\ 50^{m}.9$		14 0 18	95.779	104.443	14 1 44	
49	.297	.905	5	ζ	61°.9	61°.3		35	.763	.459	51	
7	.292	.887	23					45	.747	.464	2	
20	.297	.899	35	ρ′	−0″.078	−0″.022		54	.737	.493	12	
14 4 28	107.302	92.881	14 6 47	ρ″	−0″.020	−0″.029		14 1 4	95.728	104.506	14 2 20	
14 4 3.6	107.294	92.900	14 6 17.8		$B=30^{in}.0$	$T=27°.0$		14 0 43.2	95.751	104.473	14 2 1.8	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y = -71.482$			*a*	...	...	11.2		$x = -43.315$			
14 5 10.7	$\rho = -\ 0.098$							14 1 22.5	$\rho = \ 0.051$			Focal reading $2^{in}.48$. Power 388. Seeing 2–3. Weight 3.
$\Delta t=\ 21.7$	$\iota = \ 0.032$							$\Delta t=-21.7$	$\iota = \ 0.047$			
14 4 49.0	$y_0=\ 71.612$			Eros s. p.			....	14 1 0.8	$x_0=\ 43.319$			

161. 1900 December 10.

t	Δα cos δ	Δα′ cos δ	*t*′		*A*	*D*	*t*	Δδ	Δδ′	*t*′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
14 8 15	92.925	107.122	14 10 26	*r*	$+5^h 59^m.4$	$+6^h 3^m.4$	14 12 43	105.664	94.314	14 14 14	
32	.949	.112	41	ζ	62°.6	63°.2	57	.694	.297	27	
42	.938	.133	55	ρ′	−0″.080	−0″.032	7	.700	.273	41	
56	.991	.128	10	ρ″	−0″.024	−0″.034	18	.715	.261	52	
14 9 8	92.952	107.132	14 11 21				14 13 28	105.721	94.242	14 15 0	
14 8 42.6	92.951	107.125	14 10 54.6		$B=30^{in}.0$	$T=27°.0$	14 13 6.6	105.699	94.277	14 14 38.8	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = −70.390			*a*	...	... 11.2		*x* = −56.723			Field taken at $14^h 17^m$. Focal reading $2^{in}.48$. Power 388. Seeing 2-3. Weight 3.
14 9 48.6	ρ = − 0.104			*b*	−160″	−120″ 12.4	14 13 52.7	ρ = − 0.066			
Δ*t* = −21.7	ι = − 0.036						Δ*t* = −21.7	ι = + 0.048			
14 9 26.9	y_0 = −70.530			Eros s. p.		9.3	14 13 31.0	x_0 = −56.741			

162. December 11.

t	Δα cos δ	Δα′ cos δ	*t*′		*A*	*D*	*t*	Δδ	Δδ′	*t*′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 20 50	99.802	100.287	5 22 4	*r*	$-2^h 46^m.6$	$-2^h 49^m.7$	5 17 30	102.753	97.454	5 18 47	
1	.800	.310	10	ζ	31°.1	31°.7	46	.756	.480	15	
19	.827	.295	24	ρ′	+0″.001	+0″.008	59	.734	.475	30	
28	.810	.318	36	ρ″	0″.000	0″.000	13	.709	.503	45	
5 21 40	99.831	100.325	5 22 42				5 18 24	102.685	97.530	5 19 55	
5 21 15.6	99.814	100.307	5 22 23.2		$B=29^{in}.8$	$T=32°.0$	5 17 58.4	102.727	97.488	5 19 26.4	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = +2.448			*a*	...	... 11.1		*x* = +26.017			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 21 49.4	ρ = +0.001						5 18 42.4	ρ = + 0.008			
Δ*t* = −21.8	ι = +0.014						Δ*t* = −21.8	ι = 0.000			
5 21 27.6	y_0 = +2.463			Eros n. f.		....	5 18 20.6	x_0 = +26.025			

163. December 11.

t	Δα cos δ	Δα′ cos δ	*t*′		*A*	*D*	*t*	Δδ	Δδ′	*t*′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 23 59	100.315	99.712	5 25 23	*r*	$-2^h 43^m.2$	$-2^h 39^m.9$	5 27 20	98.240	101.671	5 28 40	
15	.306	.731	36	ζ	30°.6	30°.0	41	.269	.673	53	
24	.321	.750	52	ρ′	+0″.001	+0″.005	49	.281	.620	4	
37	.367	.686	18	ρ″	0″.000	0″.000	1	.287	.615	22	
5 24 44	100.352	99.712	5 26 28				5 28 14	98.301	101.606	5 29 32	
5 24 23.8	100.332	99.718	5 25 55.4		$B=29^{in}.8$	$T=32°.0$	5 27 49.0	98.276	101.637	5 29 6.2	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = +3.049			*a*	..	.. 11.1		*x* = +16.691			Field taken at $5^h 30^m$. Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 25 9.6	ρ = +0.001			*b*	+30″	0″ 12.2	5 28 27.6	ρ = + 0.005			
Δ*t* = −21.8	ι = +0.013						Δ*t* = −21.8	ι = − 0.003			
5 24 47.8	y_0 = +3.063			Eros n. f.		....	5 28 5.8	x_0 = +16.693			

164. December 11.

t	Δα cos δ	Δα′ cos δ	*t*′		*A*	*D*	*t*	Δδ	Δδ′	*t*′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 35 40	99.485	100.658	5 37 7	*r*	$-2^h 31^m.5$	$-2^h 34^m.3$	5 33 11	101.272	98.909	5 34 9	
8	.500	.677	19	ζ	28°.6	29°.1	26	.254	.932	22	
18	.482	.662	27	ρ′	+0″.002	+0″.003	32	.235	.940	30	
28	.463	.660	33	ρ″	0″.000	0″.000	40	.230	.968	37	
5 36 34	99.475	100.657	5 37 42				5 33 46	101.219	98.981	5 34 46	
5 36 13.6	99.481	100.663	5 37 25.6		$B=29^{in}.8$	$T=32°.0$	5 33 31.0	101.242	98.946	5 34 28.8	
	″			*Star*	*y*	*x* *Mag.*		″			
	y = +5.870			*a*	...	... 11.1		*x* = +11.402			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
5 36 49.6	ρ = +0.002						5 33 59.9	ρ = + 0.003			
Δ*t* = −21.8	ι = +0.005						Δ*t* = −21.8	ι = − 0.001			
5 36 27.8	y_0 = +5.877			Eros n. f.		....	5 33 38.1	x_0 = +11.404			

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
165.					1900 DECEMBER 11.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 13 3	97.334	102.774	7 14 42	τ	$-0^h\ 53^m.8$	$-0^h\ 50^m.2$	7 16 48	108.788	91.126	7 18 19	Hazy, thin clouds, interrupting measures.
18	.382	.769	55	ζ	12°.6	12°.0	5	.824	.109	28	
29	.357	.768	8	ρ′	+0″.008	−0″.026	19	.857	.099	39	
39	.368	.783	16	ρ″	−0″.001	0″.000	26	.861	.067	48	
7 13 50	97.374	102.805	7 15 26				7 17 34	108.877	91.062	7 18 55	
7 13 27.8	97.363	102.780	7 15 5.4		$B=29^{in}.9$	$T=30°.0$	7 17 14.4	108.841	91.093	7 18 37.8	
	″			Star	y	x Mag.		″			
	y = +26.901			a	...	... 11.0		x = −88.135			Field taken at $7^h\ 20^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
7 14 16.6	ρ = + 0.007			b	+30″	0″ 12.2	7 17 56.1	ρ = − 0.026			
Δt = −21.8	ι = − 0.021						Δt = −21.8	ι = − 0.007			
7 13 54.8	$y_0=+26.887$			Eros s. f.		9.3	7 17 34.3	$x_0=-88.168$			
166.					DECEMBER 11.						
h m s	r	r	h m s				h m s	r	r	h m s	
14 47 45	111.115	89.028	14 49 42	τ	$+6^h\ 42^m.1$	$+6^h\ 38^m.4$	14 44 10	87.411	112.951	14 46 1	
9	.092	.056	54	ζ	69°.0	68°.0	23	.395	112.999	18	
26	.051	.016	0	ρ′	−0″.178	−0″.114	31	.387	113.012	31	
38	.097	.032	8	ρ″	−0″.122	−0″.098	37	.367	.018	40	
14 48 45	111.071	89.040	14 50 20				14 44 46	87.337	113.037	14 46 50	
14 48 20.6	111.085	89.034	14 50 0.8		$B=30^{in}.0$	$T=26°.0$	14 44 29.4	87.379	113.003	14 46 28.0	
	″			Star	y	x Mag.		″			
	y = −109.504			a	..	... 11.0		x = −127.247			Field taken at $14^h\ 52^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 2.
14 49 10.7	ρ = − 0.300			b	−70″	−180″ 12.4	14 45 28.7	ρ = − 0.212			
Δt = −21.9	ι = − 0.110						Δt = −21.9	ι = + 0.093			
14 48 48.8	$y_0=-109.914$			Eros s. p.		9.3	14 45 6.8	$x_0=-127.366$			
167.					DECEMBER 11.						
h m s	r	r	h m s				h m s	r	r	h m s	
14 53 20	97.463	102.558	14 54 29	τ	$+6^h\ 47^m.2$	$+6^h\ 49^m.7$	14 55 53	102.418	97.940	14 56 58	
38	.473	.541	41	ζ	69°.7	70°.0	6	.402	.967	12	
45	.445	.532	49	ρ′	−0″.043	+0″.023	17	.383	.975	20	
53	.463	.495	2	ρ″	+0″.025	0″.025	24	.371	97.990	31	
14 53 59	97.452	102.526	14 55 12				14 56 31	102.367	98.013	14 57 39	
14 53 43.0	97.459	102.530	14 54 50.6		$B=30^{in}.0$	$T=26°.0$	14 56 14.2	102.388	97.977	14 57 20.0	
	″			Star	y	x Mag.		″			
	y = −25.182							x = +21.905			Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
14 54 16.8	ρ = − 0.018			b	...	... 12.4	14 56 47.1	ρ = 0.002			
Δt = −21.9	ι = + 0.021						Δt = −21.9	ι = + 0.021			
14 53 54.9	$y_0=-25.179$			Eros n. p.		...	14 56 25.2	$x_0=+21.924$			
168.					DECEMBER 12.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 10 19	88.837	111.158	5 12 28	τ	$-2^h\ 53^m.4$	$-2^h\ 56^m.8$	5 7 27	103.720	96.181	5 8 38	
41	.856	.138	36	ζ	32°.3	32°.9	41	.746	.161	52	
51	.843	.166	45	ρ′	−0″.045	−0″.011	51	.765	.171	59	
11	.928	.152	55	ρ″	0″.000	+0″.001	59	.778	.150	8	
5 11 18	88.901	111.148	5 13 1				5 8 6	103.794	96.138	5 9 16	
5 10 52.0	88.873	111.152	5 12 45.0		$B=29^{in}.9$	$T=35°.0$	5 7 48.8	103.761	96.160	5 8 58.6	
	″			Star	x	y Mag.		″			
	y = −110.637			a	...	... 8.0		x = −37.747			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 11 48.5	ρ = − 0.045						5 8 23.7	ρ = − 0.010			
Δt = −22.0	ι = − 0.027						Δt = −22.0	ι = + 0.076			
5 11 26.5	$y_0=-110.709$			Eros s. p.		...	5 8 1.7	$x_0=-37.681$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
169.					1900 DECEMBER 12.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 15 40	110.986	89.113	5 17 19	τ	$-2^{h}\ 48^{m}.3$	$-2^{h}\ 45^{m}.0$		5 19 12	95.221	104.981	5 20 22	
50	.978	.101	34	ζ	31°.4	30°.9		26	.207	105.017	42	
4	.973	.092	48					38	.198	.021	51	
16	.959	.152	57	ρ'	$-0''.043$	$-0''.014$		45	.189	.028	58	
5 16 25	110.954	89.148	5 18 15	ρ''	$0''.000$	$0''.000$		5 19 53	95.172	105.034	5 21 9	
5 16 3.0	110.970	89.121	5 17 46.6		$B=29^{in}.9$	$T=35°.0$		5 19 34.8	95.197	105.016	5 20 48.4	
	″			Star	y	x	Mag.		″			
	$y =$ 108.501			a	..	...	8.0		$x =$ 48.760			Field taken at $5^{h}\ 22^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
5 16 54.8	$\rho = -$ 0.043			b	+15″	−200″	10.0	5 20 11.6	$\rho = -$ 0.014			
$\Delta t = -$ 22.0	$\iota = -$ 0.029							$\Delta t = -22.0$	$\iota = +$ 0.067			
5 16 32.8	$y_0 = -$ 108.573			Eros s. p.			9.3	5 19 49.6	$x_0 = -$ 48.707			
170.					DECEMBER 12.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 5 59	91.390	108.694	7 7 32	τ	$0^{h}\ 57^{m}.9$	$1^{h}\ 0^{m}.8$		7 3 20	102.225	97.894	7 4 15	
5	.391	.712	41	ζ	13°.0	13°.4		31	.209	.902	29	
20	.362	.691	48					39	.199	.961	37	
31	.392	.713	54	ρ'	$-0''.026$	$+0''.006$		48	.195	.984	51	
7 6 36	91.381	108.698	7 8 5	ρ''	$0''.000$	$0''.001$		7 3 55	102.175	97.988	7 4 59	
7 6 18.2	91.383	108.702	7 7 48.0		$B=29^{in}.9$	$T=32°.0$		7 3 38.6	102.201	97.946	7 4 38.2	
	″			Star	y	x	Mag.		″			
	$y = -$86.006								$x = +$ 21.130			Focal reading $2^{in}.49$. Power 388. Seeing 3. Weight 3.
7 7 3.1	$\rho = -$ 0.026			b	...	...	10.0	7 4 8.4	$\rho = +$ 0.005			
$\Delta t = -$ 22.0	$\iota = +$ 0.005							$\Delta t = -$ 22.0	$\iota = +$ 0.024			
7 6 41.1	$y_0 = -86.027$			Eros n. p.			....	7 3 46.4	$x_0 = +21.159$			
171.					DECEMBER 12.							
h m s	r	r	h m s					h m s	r	r	h m s	
7 11 3	108.555	91.448	7 12 28	τ	$0^{h}\ 52^{m}.8$	$0^{h}\ 49^{m}.6$		7 14 13	98.959	100.978	7 15 27	Clouds interrupting.
14	.569	.498	38	ζ	12°.2	11°.8		26	.938	.971	45	
22	.552	.547	6					39	.944	.989	58	
28	.549	.541	16	ρ'	$-0''.026$	$+0''.003$		52	.961	.954	9	
7 11 35	108.544	91.556	7 13 23	ρ''	$0''.000$	$0''.000$		7 15 2	98.972	100.972	7 16 23	
7 11 20.4	108.554	91.518	7 12 58.2		$B=29^{in}.9$	$T=32°.0$		7 14 38.4	98.955	100.973	7 15 56.4	
	″			Star	y	x	Mag.		″			
	$y =$ 84.600			a	+10″	+200″	8.0		$x = +$10.021			Field taken at $7^{h}\ 18^{m}$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
7 12 9.3	$\rho =$ 0.026			b	..	...	10.0	7 15 17.4	$\rho = +$ 0.003			
$\Delta t = -22.0$	$\iota = +$ 0.004							$\Delta t = -22.0$	$\iota = +$ 0.020			
7 11 47.3	$y_0 = -$84.622			Eros n. p.			9.3	7 14 55.4	$x_0 = +10.044$			
172.					DECEMBER 13.							
h m s	r	r	h m s					h m s	r	r	h m s	
5 28 1	110.002	90.114	5 29 35	τ	$-2^{h}\ 32^{m}.9$	$-2^{h}\ 36^{m}.0$		5 24 51	96.713	103.178	5 26 11	
16	.009	.112	41	ζ	28°.8	29°.3		4	.738	.163	21	
24	.018	.086	0					13	.747	.102	43	
39	.002	.100	9	ρ'	$+0''.036$	$+0''.009$		23	.778	.116	52	
5 28 47	110.011	90.090	5 30 18	ρ''	$+0''.002$	$0''.000$		5 25 34	96.807	103.099	5 27 4	
5 28 25.4	110.008	90.100	5 29 56.6		$B=29^{in}.6$	$T=53°.0$		5 25 13.0	96.757	103.132	5 26 38.2	
	″			Star	y	x	Mag.		″			
	$y = +98.862$			a	...	...	10.8		$x = +$31.658			Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.
5 29 11.0	$\rho = +$ 0.038							5 25 55.6	$\rho = +$ 0.009			
$\Delta t = -22.0$	$\iota = +$ 0.016							$\Delta t = -$22.0	$\iota = -$ 0.057			
5 28 49.0	$y_0 = +98.916$			Eros n. f.			....	5 25 33.6	$x_0 = +31.610$			

173. 1900 DECEMBER 13.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 32 48	94.521	105.540	5 34 25	τ	−2^h 28^m.0	−2^h 24^m.6	5 36 24	104.013	95.899	5 37 36	
7	.562	.512	39	ζ	27°.9	27°.4	37	.036	.876	52	
18	.535	.461	55	ρ'	−0″.019	−0″.011	46	.044	.871	5	
29	.530	.506	5	ρ''	0″.000	0″.000	55	.050	.842	11	
5 33 38	94.539	105.497	5 35 15				5 37 2	104.052	95.832	5 38 21	
5 33 16.0	94.537	105.503	5 34 51.8		B=29^{in}.6	T=53°.0	5 36 44.8	104.039	95.864	5 38 1.0	
5 34 3.9 Δt=−22.0	″ y =− 54.457 ρ =− 0.019 ι =− 0.022			Star a b	y −160″ ...	x Mag. − 80″ 10.8 .. 11.8	5 37 22.9 Δt=−22.0	″ x =−40.596 ρ =− 0.011 ι =+ 0.029			Field taken at 5^h 40^m. Focal reading 2^{in}.49. Power 388. Seeing 2. Weight 3.
5 33 41.9	y_0=− 54.498			Eros s. p.		9.3	5 37 0.9	x_0= −40.578			

174. DECEMBER 13.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 44 20	110.396	89.514	5 46 0	τ	−2^h 16^m.4	−2^h 19^m.6	5 41 27	98.383	101.570	5 42 34	
38	.393	.550	15	ζ	25°.9	26°.5	38	.401	.548	46	
47	.428	.532	28	ρ'	+0″.004	+0″.004	47	.419	.559	55	
54	.443	.508	40	ρ''	0″.000	0″.000	56	.433	.515	10	
5 45 9	110.431	89.533	5 46 49				5 42 5	98.461	101.497	5 43 20	
5 44 45.6	110.418	89.527	5 46 26.4		B=29^{in}.6	T=52°.0	5 41 46.6	98.419	101.538	5 42 57.0	
5 45 36.0 Δt=−22.0	″ y =+103.743 ρ =+ 0.004 ι =+ 0.006			Star a	y ...	x Mag. ... 10.8	5 42 21.8 Δt=−22.0	″ x =+15.489 ρ =+ 0.004 ι =− 0.055			Focal reading 2^{in}.49. Power 388. Seeing 2. Weight 3.
5 45 14.0	y_0=+103.753			Eros n. f.		....	5 41 59.8	x_0=+15.438			

175. DECEMBER 13.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 24 50	102.082	98.226	7 26 12	τ	−0^h 35^m.8	−0^h 38^m.7	7 22 11	97.821	102.385	7 23 17	
2	.074	.148	28	ζ	9°.7	10°.0	25	.832	.406	28	
17	.058	.167	41	ρ'	−0″.005	−0″.006	38	.812	.418	38	
27	.042	.155	51	ρ''	0″.000	0″.000	47	.793	.430	46	
7 25 37	102.029	98.147	7 26 57				7 22 56	97.770	102.438	7 23 56	
7 25 14.6	102.057	98.169	7 26 37.8		B=29^{in}.6	T=49°.0	7 22 35.4	97.806	102.415	7 23 37.0	
7 25 56.2 Δt=−22.0	″ y =− 19.307 ρ =− 0.005 ι =− 0.006			Star a	y ...	x Mag. ... 11.8	7 23 6.2 Δt=−22.0	″ x =−22.888 ρ =− 0.006 ι =+ 0.004			Focal reading 2^{in}.49. Power 388. Seeing 3. Weight 3.
7 25 34.2	y_0= − 19.318			Eros s. p.		....	7 22 44.2	x_0=−22.890			

176. DECEMBER 13.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	Parallel of micrometer tested on equatorial stars at 8^h 13^m.
7 28 2	98.764	101.325	7 29 4	τ	−0^h 32^m.9	−0^h 30^m.2	7 30 42	97.821	102.144	7 31 52	
15	.794	.334	12	ζ	9°.3	9°.0	56	.812	.136	2	
21	.768	.343	21	ρ'	+0″.004	+0″.006	6	.852	.125	11	
31	.773	.330	28	ρ''	0″.000	0″.000	14	.868	.101	21	
7 28 39	98.767	101.339	7 29 36				7 31 24	97.876	102.091	7 32 31	
7 28 21.6	98.773	101.334	7 29 20.2		B=29^{in}.6	T=50°.0	7 31 4.4	97.846	102.119	7 32 11.4	
7 28 50.9 Δt=−22.0	″ y =+ 12.718 ρ =+ 0.004 ι =+ 0.005			Star a b	y + 75″ ..	x Mag. + 90″ 11.8 .. 11.8	7 31 37.9 Δt=−22.0	″ x =+21.219 ρ =+ 0.006 ι =− 0.003			Field taken at 7^h 34^m. Focal reading 2^{in}.49. Power 388. Seeing 3. Weight 3.
7 28 28.9	y_0=+ 12.727			Eros n. f.		9.3	7 31 15.9	x_0=+21.222			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
177.					1900 DECEMBER 13.						
h m s	r	r	h m s				h m s	r	r	h m s	
13 45 48	99.851	100.123	13 47 0	τ	$+5^h\ 45^m.8$	$+5^h\ 42^m.4$	13 42 18	100.733	99.514	13 43 36	**Eros moving directly toward star *a*; almost occulted; can not see the star at $13^h\ 48^m\ 4^s$. Apparently a real occultation.**
13	.874	.084	12	ζ	61°.1	60°.5	37	.667	.528	49	
27	.901	.091	19				50	.659	.536	0	
34	.912	.062	28	ρ'	−0″.001	+0″.003	0	.650	.551	12	
13 46 40	99.900	100.053	13 47 34	ρ''	+0″.001	−0″.001	13 43 9	100.638	99.560	13 44 18	
13 46 20.4	99.888	100.083	13 47 18.6		$B=29^{in}.8$	$T=38°.0$	13 42 46.8	100.669	99.538	13 43 59.0	
	″			*Star*	y	x *Mag.*		″			
	$y=-0.968$			*a*	...	... 11.4		$x=+5.617$			
13 46 49.5	$\rho=0.000$						13 43 22.9	$\rho=+0.002$			**Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 4.**
$\Delta t=-22.0$	$\iota=0.000$						$\Delta t=-22.0$	$\iota=0.000$			
13 46 27.5	$y_0=-0.968$			Eros n. p.		....	13 43 0.9	$x_0=+5.619$			
178.					DECEMBER 13.						
h m s	r	r	h m s				h m s	r	r	h m s	
13 50 59	100.254	99.668	13 52 40	τ	$+5^h\ 51^m.4$	$+5^h\ 55^m.8$	13 55 24	109.606	90.698	13 57 19	
15	.299	.720	54	ζ	61°.9	62°.6	38	.593	.740	30	
39	.341	.743	14				48	.564	.780	43	
53	.330	.731	24	ρ'	−0″.003	+0″.050	2	.549	.772	54	
13 52 10	100.358	99.718	13 53 40	ρ''	+0″.041	0″.000	13 56 19	109.538	90.774	13 58 6	
13 51 35.2	100.316	99.716	13 53 10.4		$B=29^{in}.8$	$T=38°.0$	13 55 50.2	109.570	90.753	13 57 42.4	
	″			*Star*	y	x *Mag.*		″			
	$y=-2.980$			*a*	−15″	+160″ 11.4		$x=+93.444$			**Field taken at $14^h\ 0^m$. Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.**
13 52 22.8	$\rho=+0.038$			*b*	..	... 11.2	13 56 46.3	$\rho=+0.050$			
$\Delta t=-22.0$	$\iota=+0.066$						$\Delta t=-22.0$	$\iota=0.000$			
13 52 0.8	$y_0=-2.876$			Eros n. p.		9.3	13 56 24.3	$x_0=+93.494$			
179					DECEMBER 13.						
h m s	r	r	h m s				h m s	r	r	h m s	
14 5 46	100.839	99.139	14 6 59	τ	$+6^h\ 5^m.8$	$+6^h\ 2^m.6$	14 2 14	98.462	101.730	14 3 56	
1	.863	.150	23	ζ	64°.1	63°.6	40	.404	.762	13	
11	.870	.096	31				53	.397	.778	23	
18	.894	.088	40	ρ'	+0″.010	−0″.010	4	.394	.810	36	
14 6 26	100.912	99.079	14 7 49	ρ''	−0″.011	+0″.003	14 3 18	98.399	101.825	14 4 49	
14 6 8.4	100.876	99.110	14 7 28.4		$B=29^{in}.8$	$T=38°.0$	14 2 49.8	98.411	101.781	14 4 23.4	
	″			*Star*	y	x *Mag.*		″			
	$y=+8.770$			*a*	..	... 11.4		$x=-16.736$			
14 6 48.4	$\rho=-0.001$						14 3 36.6	$\rho=-0.007$			**Focal reading $2^{in}.49$. Power 388. Seeing 2. Weight 3.**
$\Delta t=-22.0$	$\iota=-0.014$						$\Delta t=-22.0$	$\iota=-0.004$			
14 6 26.4	$y_0=+8.755$			Eros s. f.		....	14 3 14.6	$x_0=-16.747$			
180.					DECEMBER 14.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 15 12	81.954	118.178	5 18 7	τ	$-2^h\ 41^m.7$	$-2^h\ 47^m.0$	5 10 28	116.245	84.082	5 12 36	**Before this measure was taken, focal reading changed to $2^{in}.47$.**
32	.976	.182	44	ζ	30°.3	31°.3	42	.228	.120	58	
49	.961	.214	58				59	.200	.138	22	
15	.962	.226	15	ρ'	+0″.071	+0″.047	8	.183	.145	32	
5 16 32	81.951	118.241	5 19 39	ρ''	0″.001	−0″.001	5 11 16	116.170	84.188	5 13 47	
5 15 52.0	81.961	118.208	5 18 56.6		$B=30^{in}.0$	$T=27°.0$	5 10 54.6	116.205	84.135	5 13 15.0	
	″			*Star*	y	x *Mag.*		″			
	$y=+180.012$			*a*	...	... 9.1		$x=+159.267$			**Field taken at $5^h\ 20^m$. Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 2.**
5 17 24.3	$\rho=+0.070$			*b*	−30″	+150″ 11.2	5 12 4.8	$\rho=+0.046$			
$\Delta t=-22.1$	$\iota=+0.095$			*c*	+210	+240 11.4	$\Delta t=-22.1$	$\iota=-0.112$			
5 17 2.2	$y_0=+180.177$			Eros n. f.		9.3	5 11 42.7	$x_0=+159.201$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
181.					1900 DECEMBER 14.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 24 20	106.091	93.937	5 26 4	τ	$-2^h\ 33^m.4$	$-2^h\ 29^m.6$	5 28 24	92.517	107.703	5 29 43	
36	.108	.923	24	ζ	$28^\circ.9$	$28^\circ.2$	37	.536	.718	56	
47	.122	.969	35	ρ'	$-0''.023$	$-0''.022$	49	.492	.709	9	
4	.114	.986	48				58	.460	.700	27	
5 25 18	106.104	93.998	5 26 56	ρ''	$0''.000$	$0''.000$	5 29 4	92.441	107.731	5 30 45	
5 24 49.0	106.108	93.963	5 26 33.4		$B=30^{in}.0$	$T=27^\circ.0$	5 28 46.4	92.489	107.712	5 30 12.0	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=-60.315$							$x=-75.602$			
5 25 41.2	$\rho=-\ 0.023$						5 29 29.2	$\rho=-\ 0.022$			Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 3.
$\Delta t=-22.1$	$\iota=-\ 0.042$			*c*	...	... 11.4	$\Delta t=-22.1$	$\iota=+\ 0.033$			
5 25 19.1	$y_0=-60.380$			Eros s. p.		....	5 29 7.1	$x_0=-75.591$			
182.					DECEMBER 14.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 10 9	97.672	102.304	7 11 48	τ	$-0^h\ 47^m.4$	$-0^h\ 52^m.7$	7 4 22	117.048	82.808	7 6 50	
24	.668	.320	58	ζ	$10^\circ.0$	$12^\circ.0$	41	.074	.787	11	
41	.724	.322	8	ρ'	$-0''.007$	$-0''.051$	59	.078	.779	21	
2	.702	.324	18				16	.095	.761	34	
7 11 10	97.714	102.351	7 12 28	ρ''	$-0''.001$	$0''.000$	7 5 28	107.108	82.692	7 7 56	
7 10 41.2	97.696	102.324	7 12 8.0		$B=30^{in}.0$	$T=25^\circ.0$	7 4 57.2	107.081	82.765	7 7 22.4	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=-22.984$							$x=-170.422$			
7 11 24.6	$\rho=-\ 0.008$						7 6 9.8	$\rho=-\ 0.051$			Focal reading $2^{in}.47$. Power 388. Seeing –. Weight 2.
$\Delta t=-22.1$	$\iota=-\ 0.043$			*c*	...	... 11.4	$\Delta t=-22.1$	$\iota=+\ 0.006$			
7 11 2.5	$y_0=-23.035$			Eros s. p.		....	7 5 47.7	$x_0=-170.467$			
183.					DECEMBER 14.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 13 49	94.174	105.870	7 15 36	τ	$-0^h\ 43^m.7$	$-0^h\ 40^m.0$	7 17 33	110.628	89.609	7 19 6	
4	.165	.852	58	ζ	$10^\circ.0$	$10^\circ.0$	52	.603	.680	24	
19	.163	.861	7	ρ'	$-0''.018$	$+0''.031$	1	.591	.706	41	
31	.171	.851	15				7	.570	.741	58	
7 14 41	94.158	105.859	7 16 23	ρ''	$+0''.001$	$0''.000$	7 18 16	110.538	89.762	7 20 9	
7 14 16.8	94.166	105.859	7 16 3.8		$B=30^{in}.0$	$T=25^\circ.0$	7 17 57.8	110.586	89.700	7 19 39.6	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=-58.071$			*a*	$-240''$	$+\ 80''$ 9.1		$x=+103.724$			Field taken at $7^h\ 21^m$. Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
7 15 10.3	$\rho=-\ 0.017$						7 18 48.7	$\rho=+\ 0.031$			
$\Delta t=-22.1$	$\iota=+\ 0.025$			*c*	0	$+220$ 11.4	$\Delta t=-22.1$	$\iota=+\ 0.013$			
				d	...	... 10.5					
7 14 48.2	$y_0=-58.063$			Eros n. p.		9.3	7 18 26.6	$x_0=+103.768$			
184.					DECEMBER 14.						
h m s	r	r	h m s				h m s	r	r	h m s	
13 50 15	99.800	100.219	13 51 19	τ	$+5^h\ 53^m.0$	$+5^h\ 49^m.6$	13 46 25	88.097	112.158	13 48 12	
28	.787	.181	28	ζ	$62^\circ.4$	$61^\circ.9$	35	.074	.189	23	
37	.809	.178	36	ρ'	$+0''.002$	$+0''.064$	45	.055	.210	33	
47	.812	.165	42				51	.042	.235	45	
13 50 54	99.818	100.164	13 51 48	ρ''	$+0''.054$	$0''.000$	13 46 57	88.031	112.258	13 48 58	
13 50 36.2	99.805	100.181	13 51 34.6		$B=30^{in}.1$	$T=17^\circ.0$	13 46 42.6	88.060	112.210	13 48 34.2	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=+\ 1.868$			*a*	...	... 9.5		$x=+119.935$			Focal reading $2^{in}.47$. Power 388. Seeing 2–3. Weight 3.
13 51 5.4	$\rho=+\ 0.056$						13 47 38.4	$\rho=+\ 0.064$			
$\Delta t=-22.1$	$\iota=+\ 0.080$						$\Delta t=-22.1$	$\iota=\ 0.000$			
13 50 43.3	$y_0=+\ 2.004$			Eros n. f.		9.3	13 47 16.3	$x_0=+119.999$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
185.					1900 December 14.						
h m s	r	r	h m s				h m s	r	r	h m s	
13 56 17	99.898	100.165	13 57 31	τ	$+5^h\ 59^m.2$	$+6^h\ 3^m.4$	13 59 50	113.548	86.420	14 1 58	
28	.875	.179	46	ζ	63°.3	64°.0	8	.573	.367	15	
37	.869	.185	55	ρ'	−0″.002	+0″.083	17	.588	.353	39	
46	.858	.196	6	ρ''	+0″.071	+0″.001	26	.599	.316	48	
13 56 54	99.850	100.201	13 58 18				14 0 33	113.614	86.308	14 2 52	
15 56 36.4	99.870	100.185	13 57 55.2		$B=30^{in}.1$	$T=17°.0$	14 0 14.8	113.584	86.353	14 2 30.4	
	″			Star	y x	Mag.		″			
	$y=-1.565$			a	... ...	9.5		$x=+135.236$			Focal reading 2in.47.
13 57 15.8	$\rho=+0.069$						14 1 22.6	$\rho=+\ 0.084$			Power 388.
$\Delta t=-22.1$	$\iota=+0.099$						$\Delta t=-22.1$	$\iota=\ 0.000$			Seeing 2. Weight 3.
13 56 53.7	$y_0=-1.397$			Eros n. p.		....	14 1 0.5	$x_0=+135.320$			
186.					December 15.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 3 22	87.439	112.554	5 5 12	τ	$-2^h\ 51^m.5$	$-2^h\ 54^m.8$	5 0 39	101.114	99.076	5 1 33	
35	.480	.550	23	ζ	32°.0	33°.0	51	.100	.118	44	
55	.453	.531	41	ρ'	−0″.051	+0″.003	1	.072	.129	55	
1	.448	.514	49	ρ''	0″.000	+0″.001	7	.042	.142	6	
5 4 7	87.469	112.500	5 6 6				5 1 12	101.027	99.150	5 2 13	
5 3 48.0	87.458	112.530	5 5 38.2		$B=30^{in}.1$	$T=27°.0$	5 0 58.0	101.071	99.123	5 1 54.2	
	″			Star	y x	Mag.		″			
	$y=-124.514$			a	... ...	7.0		$x=+9.674$			Focal reading 2in.47.
5 4 43.1	$\rho=-\ 0.051$						5 1 26.1	$\rho=+0.004$			Power 388.
$\Delta t=-22.2$	$\iota=+\ 0.004$						$\Delta t=-22.2$	$\iota=+0.083$			Seeing 2. Weight 3.
5 4 20.9	$y_0=-124.561$			Eros n. p.		9.3	5 1 3.9	$x_0=+9.761$			
187.					December 15.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 13 51	112.112	87.950	5 15 40	τ	$-2^h\ 41^m.1$	$-2^h\ 38^m.0$	5 17 22	99.462	100.775	5 18 18	
3	.138	.972	51	ζ	30°.0	30°.0	36	.437	.791	28	
14	.114	87.991	59	ρ'	−0″.048	−0″.002	45	.391	.798	38	
21	.100	88.008	6	ρ''	0″.000	0″.000	52	.366	.800	45	
5 14 32	112.089	88.022	5 16 16				5 17 59	99.352	100.815	5 18 57	
5 14 12.2	112.111	87.989	5 15 58.4		$B=30^{in}.1$	$T=27°.0$	5 17 42.8	99.402	100.796	5 18 37.2	
	″			Star	y x	Mag.		″			
	$y=-119.796$			a	... ...	7.0		$x=-6.923$			Focal reading 2in.47.
5 15 5.3	$\rho=-\ 0.048$						5 18 10.0	$\rho=-0.002$			Power 388.
$\Delta t=-22.2$	$\iota=-\ 0.002$						$\Delta t=-22.2$	$\iota=+0.071$			Seeing 2. Weight 3.
5 14 43.1	$y_0=-119.846$			Eros s. p.		....	5 17 47.8	$x_0=-6.854$			
188.					December 15.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 20 19	107.078	93.114	7 21 49	τ	$-0^h\ 34^m.4$	$-0^h\ 38^m.1$	7 16 37	87.464	112.823	7 18 18	
33	.100	.139	10	ζ	9°.0	10°.0	51	.432	.856	34	
44	.074	.158	25	ρ'	−0″.021	−0″.038	1	.400	.877	42	
53	.064	.148	35	ρ''	0″.000	0″.000	14	.384	.889	53	
7 21 1	107.061	93.129	7 22 47				7 17 27	87.367	112.913	7 19 3	
7 20 42.0	107.075	93.138	7 22 21.2		$B=30^{in}.1$	$T=24°.0$	7 17 2.0	87.409	112.872	7 18 42.0	
	″			Star	y x	Mag.		″			
	$y=-69.214$			a	... ...	7.0		$x=-126.455$			Focal reading 2in.47.
7 21 31.6	$\rho=-\ 0.021$						7 17 52.0	$\rho=-\ 0.038$			Power 388.
$\Delta t=-22.2$	$\iota=-\ 0.028$						$\Delta t=-22.2$	$\iota=+\ 0.016$			Seeing 2–3. Weight 3.
7 21 9.4	$y_0=-69.263$			Eros s. p.		....	7 17 29.8	$x_0=-126.477$			

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
189.	1900 DECEMBER 15.										
h m s	r	r	h m s				h m s	r	r	h m s	
7 24 46	92.831	107.227	7 26 9	τ	$-0^h\ 30^m.2$	$-0^h\ 26^m.8$	7 28 3	107.245	92.754	7 29 26	Sky very transparent, but seeing unsteady.
56	.813	.292	21	ζ	8°.0	8°.0	25	.297	.734	43	
6	.804	.295	29	ρ'	$+0''.022$	$-0''.022$	32	.306	.714	50	
11	.793	.286	36	ρ''	$0''.000$	$0''.000$	41	.314	.697	0	
7 25 16	92.802	107.283	7 26 43				7 28 47	107.325	92.661	7 30 9	
7 25 3.0	92.809	107.277	7 26 27.4		$B=30^{in}.1$	$T=24°.0$	7 28 29.6	107.297	92.712	7 29 49.6	
7 25 45.2 $\Delta t=-22.2$	″ $y=+71.851$ $\rho=+0.022$ $\iota=-0.014$			Star a b	y +175″ ...	x Mag. 0″ 7.0 .. 11.3	7 29 9.6 $\Delta t=-22.2$	″ $x=-72.432$ $\rho=-0.022$ $\iota=-0.014$			Field taken at $7^h\ 31^m$. Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
7 25 23.0	$y_0=+71.859$			Eros s. f.		9.3	7 28 47.4	$x_0=-72.468$			
190.	DECEMBER 16.										
h m s	r	r	h m s				h m s	r	r	h m s	
5 16 45	126.861	73.075	5 20 0	τ	$-2^h\ 34^m.3$	$-2^h\ 40^m.1$	5 12 14	99.606	100.310	5 13 38	
11	.885	.106	19	ζ	29°.0	30°.0	29	.618	.284	51	
22	.867	.023	40	ρ'	$+0''.104$	$+0''.001$	39	.630	.267	0	
54	.892	.102	58	ρ''	$0''.000$	$-0''.001$	49	.642	.253	11	
5 18 9	126.881	73.032	5 21 12				5 13 5	99.681	100.233	5 14 19	
5 17 28.2	126.877	73.068	5 20 37.8		$B=30^{in}.1$	$T=26°.0$	5 12 39.2	99.635	100.269	5 13 59.8	
5 19 3.0 $\Delta t=-22.4$	″ $y=+267.229$ $\rho=+0.104$ $\iota=0.000$			Star a b c	y ... +165″ +135	x Mag. .. 10.5 +65″ 11.9 −20 12.2	5 13 19.5 $\Delta t=-22.4$	″ $x=+3.148$ $\rho=0.000$ $\iota=-0.159$			Field taken at $5^h\ 22^m$. Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 2.
5 18 40.6	$y_0=+267.333$			Eros n. f.		9.3	5 12 57.1	$x_0=+2.989$			
191.	DECEMBER 16.										
h m s	r	r	h m s				h m s	r	r	h m s	
5 23 35	96.167	104.012	5 24 42	τ	$-2^h\ 28^m.9$	$-2^h\ 25^m.6$	5 26 34	106.686	93.249	5 28 5	
47	.188	103.985	53	ζ	28°.0	27°.0	57	.714	.227	21	
54	.173	104.038	8	ρ'	$+0''.015$	$-0''.020$	8	.735	.208	30	
0	.161	.032	16	ρ''	$0''.000$	$0''.000$	18	.750	.194	38	
5 24 7	96.165	104.024	5 25 20				5 27 27	106.768	93.187	5 28 49	
5 23 52.6	96.171	104.018	5 25 3.8		$B=30^{in}.1$	$T=25°.0$	5 27 4.8	106.731	93.213	5 28 28.6	
5 24 28.2 $\Delta t=-22.4$	″ $y=+38.970$ $\rho=+0.015$ $\iota=-0.036$			Star b	y ...	x Mag. ... 11.9	5 27 46.7 $\Delta t=-22.4$	″ $x=-67.133$ $\rho=-0.020$ $\iota=0.023$			Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
5 24 5.8	$y_0=+38.949$			Eros s. f.		....	5 27 24.3	$x_0=-67.176$			
192.	DECEMBER 16.										
h m s	r	r	h m s				h m s	r	r	h m s	
7 24 4	94.472	105.863	7 25 58	τ	$-0^h\ 27^m.7$	$-0^h\ 31^m.5$	7 20 45	99.648	100.623	7 21 51	
25	.461	.879	15	ζ	8°.0	8°.0	2	.631	.634	3	
37	.435	.866	24	ρ'	$+0''.017$	$-0''.002$	12	.616	.645	14	
46	.412	.893	30	ρ''	$0''.000$	$0''.000$	17	.589	.657	22	
7 24 58	94.390	105.878	7 26 41				7 21 27	99.588	100.665	7 22 30	
7 24 34.0	94.434	105.876	7 26 21.6		$B=30^{in}.1$	$T=23°.0$	7 21 8.6	99.614	100.645	7 22 12.0	
7 25 27.8 $\Delta t=-22.4$	″ $y=+56.824$ $\rho=+0.017$ $\iota=-0.001$			Star a b	y ... +210″	x Mag. .. 12.0 −20″ 11.0	7 21 40.3 $\Delta t=-22.4$	″ $x=-5.120$ $\rho=-0.002$ $\iota=-0.012$			Field taken at $7^h\ 30^m$. Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
7 25 5.4	$y_0=+56.840$			Eros s. f.		9.3	7 21 17.9	$x_0=-5.134$			

193. 1900 DECEMBER 16.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 34 13	85.940	114.050	7 36 14	τ	$-0^h\ 17^m.6$	$-0^h\ 13^m.4$	7 38 29	101.079	98.939	7 40 1	
24	.968	.039	25	ζ	7°.0	6°.0	50	.080	.914	14	
31	.959	.052	31				6	.092	.898	19	
41	.970	.046	38	ρ'	$-0''.042$	$-0''.003$	16	.108	.891	28	
7 34 55	85.993	114.070	7 36 47	ρ''	$0''.000$	$0''.000$	7 39 29	101.131	98.889	7 40 41	
7 34 32.8	85.966	114.051	7 36 31.0	$B=30^{in}.1$		$T=22°.0$	7 39 2.0	101.098	98.906	7 40 20.6	
	″			*Star*	*y*	*x* *Mag.*		″			
7 35 31.9 $\Delta t=-22.4$	$y=-139.477$ $\rho=-\ 0.042$ $\iota=-\ 0.001$			*b*	...	... 11.0	7 39 41.3 $\Delta t=-22.4$	$x=-10.886$ $\rho=-\ 0.003$ $\iota=+\ 0.023$			Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
7 35 9.5	$y_0=-139.520$			Eros s. p.		....	7 39 18.9	$x_0=-10.866$			

194. DECEMBER 16.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
14 29 24	99.224	100.754	14 30 23	τ	$+6^h\ 37^m.8$	$+6^h\ 35^m.6$	14 27 14	100.723	99.348	14 28 7	Seeing very blurred.
34	.193	.739	29	ζ	69°.5	69°.2	26	.727	.320	14	
42	.217	.706	37				33	.742	.298	26	
53	.320	.768	44	ρ'	$+0''.013$	$+0''.007$	42	.760	.267	37	
14 30 4	99.291	100.734	14 30 56	ρ''	$+0''.005$	$+0''.006$	14 27 49	100.765	99.239	14 28 44	
14 29 43.4	99.249	100.740	14 30 37.8	$B=30^{in}.1$		$T=20°.0$	14 27 32.8	100.743	99.294	14 28 25.6	
	″			*Star*	*y*	*x* *Mag.*		″			
14 30 10.6 $\Delta t=-22.4$	$y=+7.405$ $\rho=+0.018$ $\iota=+0.004$			*a* *c*	... −130″	... 7.5 +165″	14 27 59.2 $\Delta t=-22.4$	$x=+7.196$ $\rho=+0.013$ $\iota=-0.005$			Field taken at $14^h\ 26^m$. Focal reading $2^{in}.47$. Power 388. Seeing 1-2. Weight 4.
14 29 48.2	$y_0=+7.427$			Eros n. f.		9.3	14 27 36.8	$x_0=+7.204$			

195. DECEMBER 18.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 36 33	116.363	83.731	5 38 41	τ	$-2^h\ 9^m.8$	$-2^h\ 14^m.6$	5 32 8	96.958	102.950	5 33 50	
50	.397	.643	3	ζ	25°.0	25°.0	32	97.042	.931	5	
8	.416	.635	23				48	.030	.912	14	
18	.410	.592	32	ρ'	$+0''.057$	$+0''.008$	59	.020	.884	22	
5 37 35	116.452	83.580	5 39 58	ρ''	$0''.000$	$0''.000$	5 33 11	97.064	102.870	5 34 30	
5 37 4.8	116.408	83.636	5 39 19.4	$B=29^{in}.9$		$T=40°.0$	5 32 43.6	97.023	102.909	5 34 12.2	
	″			*Star*	*y*	*x* *Mag.*		″			
5 38 12.1 $\Delta t=-22.6$	$y=+162.754$ $\rho=+\ 0.057$ $\iota=+\ 0.012$			*a* *b* *c*	... +200″ +160	... 8.8 + 40″ 10.8 −105 11.4	5 33 27.9 $\Delta t=-22.6$	$x=+29.231$ $\rho=+\ 0.008$ $\iota=--\ 0.082$			Field taken at $5^h\ 41^m$. Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
5 37 49.5	$y_0=+162.823$			Eros n. f.		9.3	5 33 5.3	$x_0=+29.157$			

196. DECEMBER 18.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 43 33	96.150	103.882	5 45 19	τ	$-2^h\ 3^m.0$	$-1^h\ 59^m.3$	5 47 15	102.790	97.083	5 49 1	
53	.245	.861	32	ζ	23°.0	23°.0	38	.879	.092	19	
13	.203	.830	53				55	.851	.042	36	
28	.192	.842	5	ρ'	$-0''.013$	$-0''.008$	8	.880	97.007	48	
5 44 39	96.261	103.801	5 46 27	ρ''	$0''.000$	$0''.000$	5 48 22	102.886	96.986	5 50 3	
5 44 9.2	96.210	103.843	5 45 51.2	$B=29^{in}.9$		$T=40°.0$	5 47 51.6	102.857	97.042	5 49 33.4	
	″			*Star*	*y*	*x* *Mag.*		″			
5 45 0.2 $\Delta t=-22.6$	$y=-37.908$ $\rho=-\ 0.013$ $\iota=-\ 0.011$			*b*	...	... 10.8	5 48 42.5 $\Delta t=-22.6$	$x=-28.878$ $\rho=-\ 0.008$ $\iota=+\ 0.016$			Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
5 44 37.6	$y_0=-37.932$			Eros s. p.		....	5 48 19.9	$x_0=\ -28.870$			

197. 1900 December 18.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 54 32	99.696	100.493	5 55 25	τ	$-1^h\ 52^m.6$	$-1^h\ 55^m.4$	5 51 30	93.210	106.634	5 52 58	
51	.726	.514	32	ζ	$21°.0$	$22°.0$	52	.237	.616	11	
0	.708	.502	48	ρ'	$+0''.001$	$+0''.019$	6	.262	.601	21	
9	.700	.526	58	ρ''	$0''.000$	$0''.000$	13	.273	.595	29	
5 55 15	99.698	100.516	5 56 5				5 52 22	93.297	106.582	5 53 35	
5 54 57.4	99.706	100.510	5 55 45.6	$B=29^{in}.9$		$T=40°.0$	5 52 0.6	93.256	106.606	5 53 18.8	
	″			*Star*	*y* *x*	*Mag.*		″			
5 55 22.0 $\Delta t=-22.6$	$y=+3.9.3$ $\rho=+0.001$ $\iota=+0.028$			*c*	... ...	11.4	5 52 39.7 $\Delta t=-22.6$	$x=+66.299$ $\rho=+0.019$ $\iota=0.000$			Focal reading 2in.47. Power 388. Seeing 3. Weight 3.
5 54 59.4	$y_0=+4.022$			Eros n. f.		....	5 52 17.1	$x_0=+66.318$			

198. December 18.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 52 41	93.297	106.917	7 54 12	τ	$+0^h\ 6^m.0$	$+0^h\ 9^m.4$	7 56 13	106.301	93.703	7 57 35	Parallel of micrometer tested on equatorial stars, eight transits observed, telescope west of pier. Telescope reversed and ten transits of equatorial stars observed. No deviation of the wires detected.
55	.282	.928	18	ζ	$5°.0$	$5°.0$	23	.328	.688	44	
5	.270	.914	37	ρ'	$+0''.020$	$-0''.018$	30	.345	.697	50	
19	.245	.924	46	ρ''	$0''.000$	$0''.000$	38	.346	.688	1	
7 53 28	93.238	106.931	7 54 56				7 56 49	106.327	93.671	7 58 11	
7 53 5.6	93.266	106.923	7 54 33.8	$B=29^{in}.9$		$T=37°.0$	7 56 30.6	106.329	93.689	7 57 52.2	
	″			*Star*	*y* *x*	*Mag.*		″			
7 53 49.7 $\Delta t=-22.6$	$y=+67.824$ $\rho=+0.020$ $\iota=-0.027$			*c*	... ...	11.5	7 57 11.4 $\Delta t=-22.6$	$x=-62.774$ $\rho=-0.018$ $\iota=-0.031$			Focal reading 2in 47. Power 388. Seeing 3. Weight 3.
7 53 27.1	$y_0=+67.817$			Eros s. f.		9.2	7 56 48.8	$x_0=-62.823$			

199. December 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 17 11	101.412	98.712	5 18 11	τ	$-2^h\ 27^m.5$	$-2^h\ 32^m.0$	5 12 0	93.076	106.765	5 13 56	
24	.400	.739	30	ζ	$28°.0$	$28°.0$	24	.053	.746	16	
34	.400	.730	42	ρ'	$-0''.005$	$+0''.019$	42	.072	.728	34	
41	.383	.724	2	ρ''	$0''.000$	$0''.000$	1	.133	.709	45	
5 17 47	101.376	98.763	5 19 12				5 13 17	93.144	106.690	5 14 54	
5 17 31.4	101.394	98.734	5 18 41.4	$B=29^{in}.8$		$T=55°.0$	5 12 40.8	93.096	106.728	5 14 29.0	
	″			*Star* *a* *b*	*y* *x* ... .. $-165''$ $-45''$	*Mag.* 11.5 11.3		″			
5 18 6.4 $\Delta t=-22.9$	$y=-13.210$ $\rho=-0.005$ $\iota=+0.035$						5 13 34.9 $\Delta t=-22.9$	$x=+67.700$ $\rho=+0.019$ $\iota=+0.010$			Field taken at 5h 20m. Focal reading 2in.47. Power 388. Seeing 3. Weight 3.
5 17 43.5	$y_0=-13.180$			Eros n. p.		9.3	5 13 12.0	$x_0=+67.729$			

200. December 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 24 58	99.112	100.912	5 26 11	τ	$-2^h\ 19^m.6$	$-2^h\ 16^m.4$	5 27 41	105.452	94.816	5 29 28	Just as this observation was finished the reading lamp went out.
18	.140	.890	22	ζ	$26°.0$	$26°.0$	28	.312	.838	38	
26	.117	.875	32	ρ'	$-0''.003$	$+0''.014$	40	.303	.871	46	
34	.139	.862	42	ρ''	$0''.000$	$0''.000$	48	.292	.889	57	
5 25 43	99.145	100.850	5 26 48				5 28 56	105.287	94.919	5 30 8	
5 25 23.8	99.131	100.878	5 26 31.0	$B=29^{in}.9$		$T=55°.0$	5 28 30.6	105.329	94.867	5 29 47.4	
	″			*Star* *a*	*y* *x*	*Mag.* 11.5		″			
5 25 57.4 $\Delta t=-22.9$	$y=-8.676$ $\rho=-0.003$ $\iota=+0.030$						5 29 9.0 $\Delta t=-22.9$	$x=+51.957$ $\rho=+0.014$ $\iota=+0.003$			Focal reading 2in.47. Power 388. Seeing —. Weight 3.
5 25 34.5	$y_0=-8.649$			Eros n. p.		....	5 28 46.1	$x_0=+51.974$			

201. 1900 December 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 6 48	105.090	94.847	7 8 15	τ	$-0^h\ 37^m.5$	$-0^h\ 41^m.0$	7 2 59	95.500	104.707	7 4 41	
3	.140	.815	29	ζ	$8°.0$	$9°.0$	16	.480	.728	1	
11	.142	.807	36				40	.498	.750	13	
21	.174	.784	42	ρ'	$+0''.015$	$-0''.013$	48	.439	.794	32	
7 7 29	105.187	94.787	7 9 7	ρ''	$0''.000$	$0''.000$	7 4 9	95.453	104.839	7 5 48	
7 7 10.4	105.147	94.808	7 8 37.8		$B=29^{in}.9$	$T=52°.0$	7 3 34.4	95.474	104.764	7 5 15.0	
7 7 54.1 $\Delta t=-22.9$	″ $y=+51.306$ $\rho=+\ 0.015$ $\iota=-\ 0.011$			*Star* *a*	*y* ...	*x* *Mag.* ... 11.4	7 4 24.7 $\Delta t=-22.9$	″ $x=-46.136$ $\rho=-\ 0.013$ $\iota=-\ 0.011$			Focal reading $2^{in}.47$. Power 388. Seeing 2–3. Weight 3.
7 7 31.2	$y_0=+51.310$			Eros s. f.		....	7 4 1.8	$x_0=-46.160$			

202. December 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 12 51	94.608	105.522	7 14 8	τ	$-0^h\ 31^m.5$	$-0^h\ 28^m.4$	7 15 49	105.862	94.028	7 17 13	
3	.584	.560	19	ζ	$7°.0$	$7°.0$	10	.935	.014	24	
13	.576	.587	32	ρ'	$+0''.016$	$-0''.017$	21	.948	94.007	32	
20	.568	.579	44				32	.954	93.997	38	
7 13 29	94.564	105.609	7 14 56	ρ''	$0''.000$	$0''.000$	7 16 40	105.966	93.988	7 17 45	
7 13 11.2	94.580	105.571	7 14 31.8		$B=29^{in}.9$	$T=50°.0$	7 16 18.4	105.933	94.007	7 17 30.4	
7 13 51.5 $\Delta t=-22.9$	″ $y=+54.584$ $\rho=+\ 0.016$ $\iota=-\ 0.012$			*Star* *a* *b*	*y* ... $-150''$	*x* *Mag.* .. 11.4 $+45''$ 11.2	7 16 54.4 $\Delta t=-22.9$	″ $x=-59.227$ $\rho=-\ 0.017$ $\iota=-\ 0.011$			Field taken at $7^h\ 19^m$. Focal reading $2^{in}.47$. Power 388. Seeing —. Weight 3.
7 13 28.6	$y_0=+54.588$			Eros s. f.		9.3	7 16 31.5	$x_0=-59.255$			

203. December 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 30 26	106.031	94.213	5 32 14	τ	$-2^h\ 11^m.4$	$-2^h\ 17^m.4$	5 24 3	78.246	122.048	5 26 19	
37	.021	.200	24	ζ	$25°.0$	$26°.0$	30	.196	.072	38	
50	.041	.235	36	ρ'	$-0''.020$	$-0''.062$	46	.175	.115	55	
12	.038	.254	46				53	.160	.096	9	
5 31 21	106.022	94.281	5 32 57	ρ''	$0''.000$	$0''.000$	5 25 1	78.147	122.131	5 27 29	
5 30 53.2	106.031	94.237	5 32 35.4		$B=29^{in}.7$	$T=45°.0$	5 24 38.6	78.185	122.092	5 26 54.0	
5 31 44.3 $\Delta t=-23.2$	″ $y=-58.572$ $\rho=-\ 0.020$ $\iota=-\ 0.112$			*Star* *a* *b*	*y* ... $-120''$	*x* *Mag.* ... 11.4 $-400''$ 11.8	5 25 46.3 $\Delta t=-23.2$	″ $x=-218.054$ $\rho=-\ 0.062$ $\iota=+\ 0.034$			Field taken at $5^h\ 36^m$. Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 2.
5 31 21.1	$y_0=-58.704$			Eros s. p.		9.2	5 25 23.1	$x_0=-218.082$			

204. December 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 38 6	87.342	112.865	5 39 54	τ	$-2^h\ 3^m.1$	$-1^h\ 58^m.0$	5 44 8	109.588	90.563	5 45 26	
26	.316	.859	40 5	ζ	$23°.0$	$22°.0$	22	.546	.618	40	
43	.290	.982	42 15				30	.506	.652	53	
53	.272	.991	36	ρ'	$+0''.043$	$+0''.027$	38	.494	.668	3	
5 39 0	87.265	112.999	5 42 45	ρ''	$0''.000$	$0''.000$	5 44 44	109.466	90.674	5 46 9	
5 38 37.6	87.297	112.939	5 41 19.0		$B=29^{in}.7$	$T=44°.0$	5 44 28.4	109.520	90.635	5 45 50.2	
5 39 58.3 $\Delta t=-23.2$	″ $y=+127.345$ $\rho=+\ 0.043$ $\iota=+\ 0.047$			*Star* *b*	*y* ...	*x* *Mag.* ... 11.9	5 45 9.3 $\Delta t=-23.2$	″ $x=+93.788$ $\rho=+\ 0.027$ $\iota=-\ 0.060$			Focal reading $2^{in}.47$. Power 388. Seeing —. Weight 3.
5 39 35.1	$y_0=+127.43$[illegible]			Eros n. f.		....	5 44 46.1	$x_0=+93.755$			

205. 1900 DECEMBER 20.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	Parallel of micrometer tested on equatorial stars in the meridian, telescope west of pier. Five transits indicate no tendency either way when setting is 180°.00.
6 36 1	116.443	83.587	6 37 54	τ	$-1^{h}\ 5^{m}.7$	$-1^{h}\ 9^{m}.6$	6 32 22	95.510	104.457	6 33 39	
14	.457	.548	9	ζ	$13^{\circ}.0$	$14^{\circ}.0$	40	.538	.424	48	
28	.470	.541	16				48	.542	.431	3	
41	.486	.527	24	ρ'	$+0''.049$	$+0''.013$	54	.551	.403	9	
6 36 49	116.495	83.491	6 38 38	ρ''	$0''.000$	$+0''.001$	6 33 5	95.564	104.380	6 34 19	
6 36 26.6	116.470	83.539	6 38 16.2		$B=29^{in}.7$	$T=44^{\circ}.0$	6 32 45.8	95.541	104.419	6 33 59.6	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
6 37 21.4 $\Delta t=-23.2$	$y=+163.543$ $\rho=+\ 0.049$ $\iota=+\ 0.012$			*b*	..	.. 11.9	6 33 22.7 $\Delta t=-23.2$	$x=+44.090$ $\rho=+\ 0.014$ $\iota=-\ 0.050$			Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 3.
6 36 58.2	$y_0=+163.604$			Eros n. f.		9.3	6 32 59.5	$x_0=+44.054$			

206. DECEMBER 21.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 33 31	117.283	82.868	5 35 45	τ	$-2^{h}\ 5^{m}.7$	$-2^{h}\ 10^{m}.0$	5 29 50	97.768	102.382	5 31 3	
49	.312	.895	54	ζ	$24^{\circ}.0$	$25^{\circ}.0$	4	.742	.409	17	
2	.236	.877	13				11	.718	.421	27	
21	.273	.864	19	ρ'	$-0''.059$	$-0''.007$	19	.696	.439	35	
5 34 31	117.234	82.852	5 36 29	ρ''	$0''.000$	$0''.000$	5 30 27	97.689	102.470	5 31 44	
5 34 2.8	117.268	82.871	5 36 8.0		$B=29^{in}.6$	$T=35^{\circ}.0$	5 30 10.2	97.723	102.424	5 31 25.2	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
5 35 5.4 $\Delta t=-23.6$	$y=-170.824$ $\rho=-\ 0.059$ $\iota=-\ 0.013$			*a* *b*	.. $-20''$	... 11.5 $-175''$ 11.6	5 30 47.7 $\Delta t=-23.6$	$x=-23.346$ $\rho=-\ 0.007$ $\iota=+\ 0.087$			Field taken at $5^{h}\,38^{m}$. Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 2.
5 34 41.8	$y_0=-170.896$			Eros s. p.		9.2	5 30 24.1	$x_0=-23.266$			

207. DECEMBER 21.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 41 2	85.916	114.041	5 43 4	τ	$-1^{h}\ 58^{m}.2$	$-1^{h}\ 53^{m}.8$	5 45 20	112.029	88.112	5 47 22	
24	.982	.068	18	ζ	$22^{\circ}.0$	$22^{\circ}.0$	34	112.019	.170	46	
44	.906	.082	24				54	111.984	.180	1	
51	.892	.079	49	ρ'	$-0''.047$	$+0''.034$	19	112.004	.215	12	
5 42 0	85.885	114.118	5 44 1	ρ''	$0''.000$	$0''.000$	5 46 37	111.957	88.248	5 48 31	
5 41 36.2	85.916	114.078	5 43 31.2		$B=29^{in}.6$	$T=35^{\circ}.0$	5 45 56.8	111.999	88.185	5 47 58.4	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
5 42 33.7 $\Delta t=-23.6$	$y=-139.860$ $\rho=-\ 0.047$ $\iota=+\ 0.056$			*b*	..	.. 11.6	5 46 57.6 $\Delta t=-23.6$	$x=+118.266$ $\rho=+\ 0.034$ $\iota=+\ 0.060$			Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 2.
5 42 10.1	$y_0=-139.851$			Eros n. p.		....	5 46 34.0	$x_0=+118.360$			

208. DECEMBER 21.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 17 33	107.672	92.605	7 19 5	τ	$-0^{h}\ 22^{m}.0$	$-0^{h}\ 25^{m}.6$	7 13 55	97.210	102.710	7 15 16	
48	.632	.634	16	ζ	$5^{\circ}.0$	$6^{\circ}.0$	10	.228	.685	31	
0	.620	.653	27				20	.249	.678	44	
12	.609	.667	32	ρ'	$-0''.022$	$+0''.008$	33	.267	.651	56	
7 18 22	107.598	92.678	7 19 39	ρ''	$0''.000$	$0''.000$	7 14 42	97.289	102.642	7 16 4	
7 17 59.0	107.626	92.647	7 19 23.8		$B=29^{in}.7$	$T=33^{\circ}.0$	7 14 20.0	97.249	102.673	7 15 42.2	
	$''$			*Star*	*y*	*x* *Mag.*		$''$			
7 18 41.4 $\Delta t=-23.6$	$y=-74.389$ $\rho=-\ 0.022$ $\iota=+\ 0.005$			*b*	..	.. 11.8	7 15 1.1 $\Delta t=-23.6$	$x=+26.937$ $\rho=+\ 0.008$ $\iota=+\ 0.016$			Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 3.
7 18 17.8	$y_0=-74.406$			Eros n. p.		9.3	7 14 37.5	$x_0=+26.961$			

209. 1900 DECEMBER 21.

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
13 41 6	86.516	113.520	13 42 40	τ	$+6^{h}\ 2^{m}.2$	$+6^{h}\ 10^{m}.6$	13 48 52	95.885	103.938	13 51 8	
19	.478	.541	52	ζ	65°.2	66°.5	32	.880	.885	29	
29	.452	.525	2	ρ′	+0″.174	+0″.029	40	.849	.907	38	
37	.473	.553	13	ρ″	+0″.029	+0″.100	50	.900	.910	49	
13 41 44	86.435	113.564	13 43 20				13 50 2	95.865	103.920	13 51 57	
13 41 27.0	86.471	113.541	13 43 1.4	$B=29^{in}.7$		$T=28°.0$	13 49 35.2	95.876	103.912	13 51 36.0	
13 42 14.2 Δt=−23.8	″ y =+134.437 ρ =+ 0.203 ι =+ 0.037			Star a b	y .. −15″	x Mag. .. 11.7 −40″ 11.8	13 50 35.6 Δt=−23.8	″ x =+39.909 ρ =+ 0.129 ι =− 0.113			Field taken at $13^{h}54'$ Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 3.
13 41 50.4	y_0=+134.677			Eros n. f.		9.3	13 50 11.8	x_0=+39.925			

210. DECEMBER 24.

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 14 42	99.956	100.087	5 15 32	τ	$-2^{h}\ 19^{m}.0$	$-2^{h}\ 21^{m}.0$	5 12 44	99.820	100.157	5 13 35	
53	.930	.088	41	ζ	27°.0	27°.0	56	.847	.146	43	
3	.949	.099	47	ρ′	0″.000	0″.000	6	.865	.134	51	
9	.957	.080	53	ρ″	0″.000	0″.000	13	.843	.123	57	
5 15 14	99.960	100.086	5 16 1				5 13 21	99.868	100.114	5 14 4	
5 15 0.2	99.950	100.088	5 15 46.8	$B=29^{in}.6$		$T=54°.0$	5 13 4.0	99.849	100.135	5 13 50.0	
5 15 23.5 Δt=−24.9	″ y =− 0.685 ρ = 0.000 ι = 0.000			Star a	y ..	x Mag. .. 11.0	5 13 27.0 Δt=−24.9	″ x =+ 1.421 ρ = 0.000 ι = 0.000			Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 4.
5 14 58.6	y_0=− 0.685			Eros n. p.		9.2	5 13 2.1	x_0=+ 1.421			

211. DECEMBER 24.

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	Eros probably occulted star *a* about $5^{h}16^{m}$
5 19 0	99.858	100.287	5 19 40	τ	$-2^{h}\ 14^{m}.8$	$-2^{h}\ 12^{m}.4$	5 21 7	100.651	99.270	5 22 11	
11	.837	.210	50	ζ	26°.0	25°.0	20	.753	.246	22	
17	.814	.217	57	ρ′	+0″.001	−0″.002	31	.732	.194	34	
24	.812	.345	11	ρ″	0″.000	0″.000	39	.743	.180	43	
5 19 30	99.803	100.333	5 20 18				5 21 48	100.754	99.173	5 22 50	
5 19 16.4	99.825	100.278	5 19 59.2	$B=29^{in}.6$		$T=54°.0$	5 21 29.0	100.727	99.213	5 22 32.0	
5 19 37.8 Δt=− 24.9	″ y =+ 2.250 ρ =+ 0.001 ι =− 0.002			Star a	y ..	x Mag. .. 11.2	5 22 0.5 Δt=−24.9	″ x =− 7.519 ρ =− 0.002 ι =− 0.003			Focal reading $2^{in}.47$. Power 388. Seeing 2. Weight 4
5 19 12.9	y_0=+ 2.249			Eros s. f.		9.2	5 21 35.6	x_0=− 7.524			

212. DECEMBER 29.

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 33 58	115.367	84.475	5 36 0	τ	$-1^{h}\ 49^{m}.8$	$-1^{h}\ 54^{m}.5$	5 29 40	94.527	105.442	5 31 6	Before this measur was taken, foca reading changed t $2^{in}.48$.
12	.378	.540	26	ζ	21°.0	22°.0	58	.549	.354	21	
27	.397	.500	39	ρ′	+0″.051	+0″.016	7	.564	.426	34	
35	.429	.478	57	ρ″	0″.000	−0″.001	18	.575	.370	56	
5 34 47	115.470	84.433	5 37 14				5 30 28	94.583	105.352	5 32 4	
5 34 21.8	115.408	84.485	5 36 39.2	$B=29^{in}.8$		$T=37°.0$	5 30 6.2	94.560	105.389	5 31 36.2	
5 35 30.5 Δt=−27.7	″ y =+153.566 ρ =+ 0.051 ι =+ 0.021			Star a	y ..	x Mag. .. 11.3	5 30 51.2 Δt=−27.7	″ x =+53.777 ρ =+ 0.015 ι =− 0.065			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
5 35 2.8	y_0=+153.638			Eros n. f.		9.3	5 30 23.5	x_0=+53.727			

213. 1900 DECEMBER 29.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	*Hand lamp went out and measures interrupted.
5 40 15	92.211	107.713	5 41 46	τ	$-1^{h}\ 43^{m}.9$	$-1^{h}\ 39^{m}.9$		5 43 38	116.072	84.300	5 45 25	
29	.187	.735	4	ζ	20°.0	19°.0		58	116.038	.361	45 44	
38	.233	.628	18					13	115.953	.443	*47 19	
46	.244	.671	30	ρ'	−0″.025	+0″.045		25	.912	.492	37	
5 40 52	92.251	107.660	5 42 42	ρ''	−0″.001	0″.000		5 44 33	115.877	84.503	5 47 47	
5 40 36.0	92.225	107.681	5 42 16.0		$B=29^{in}.8$	$T=37°.0$		5 44 9.4	115.970	84.420	5 46 46.4	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-76.756$			*a*	−210″	+80″	11.4		$x=+156.681$			Field taken at $5^{h}\ 49^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
5 41 26.0	$\rho=-\ 0.026$			*b*	...	..	11.6	5 45 27.9	$\rho=+\ 0.045$			
$\Delta t=-27.7$	$\iota=+\ 0.067$							$\Delta t=-27.7$	$\iota=+\ 0.028$			
5 40 58.3	$y_0=-76.715$			Eros n. p.			9.3	5 45 0.2	$x_0=+156.754$			

214. DECEMBER 29.

h m s	r	r	h m s					h m s	r	r	h m s	
7 8 54	101.413	98.630	7 10 17	τ	$-0^{h}\ 15^{m}.3$	$-0^{h}\ 19^{m}.5$		7 4 24	92.715	107.231	7 6 9	
7	.378	.564	29	ζ	3°.0	4°.0		34	.762	.212	27	
16	.375	.538	37					45	.754	.181	48	
27	.377	.504	49	ρ'	+0″.004	+0″.021		53	.772	.147	3	
7 9(38)	101.406	98.498	7 10 52	ρ''	0″.000	0″.000		7 5 6	92.787	107.103	7 7 12	
7 9 16.4	101.390	98.547	7 10 36.8		$B=29^{in}.8$	$T=33°.0$		7 4 44.4	92.758	107.175	7 6 43.8	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=+14.120$								$x=+71.596$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
7 9 56.6	$\rho=+\ 0.004$			*b*	...	...	11.6	7 5 44.1	$\rho=+\ 0.021$			
$\Delta t=-27.7$	$\iota=+\ 0.013$							$\Delta t=\ 27.7$	$\iota=-\ 0.002$			
7 9 28.9	$y_0=+14.137$			Eros n. f.			....	7 5 16.4	$x_0=+71.615$			

215. DECEMBER 29.

h m s	r	r	h m s					h m s	r	r	h m s	
7 13 15	92.048	107.945	7 14 58	τ	$-0^{h}\ 10^{m}.7$	$-0^{h}\ 6^{m}.9$		7 16 53	104.729	95.226	7 18 37	
37	.086	.913	14	ζ	2°.0	1°.0		16	.778	.241	58	
46	.095	.876	23					27	.799	.203	27	
54	.124	.861	29	ρ'	−0″.023	−0″.014		41	.805	.174	36	
7 14 1	92.130	107.845	7 15 36	ρ''	0″.000	0″.000		7 17 51	104.816	95.117	7 19 47	
7 13 42.6	92.097	107.888	7 15 20.0		$B=29^{in}.8$	$T=33°.0$		7 17 25.6	104.785	95.192	7 19 17.0	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-78.420$								$x=\ 47.641$			Field taken at $7^{h}\ 21^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
7 14 31.3	$\rho=-\ 0.023$			*b*	−120″	−125″	11.6	7 18 21.3	$\rho=-\ 0.014$			
$\Delta t=-27.7$	$\iota=-\ 0.008$			*c*	...	...	11.8	$\Delta t=-27.7$	$\iota=+\ 0.006$			
7 14 3.6	$y_0=-78.451$			Eros s. p.			9.3	7 17 53.6	$x_0=\ 47.649$			

216. DECEMBER 29.

h m s	r	r	h m s					h m s	r	r	h m s	*The original record is as follows: r 68.162 .192 .223 .131 68.160
13 37 52	97.112	103.039	13 39 14	τ	$+6^{h}\ 14^{m}.2$	$+6^{h}\ 9^{m}.5$		13 32 33	132.675	*67.838	13 35 6	
12	.130	102.990	28	ζ	69°.0	68°.2		52	.626	.808	21	
28	.214	.837	38					2	.655	.777	29	
38	.257	.818	51	ρ'	−0″.047	+0″.269		23	.547	.869	40	
13 38 45	97.253	102.780	13 40 6	ρ''	+0″.289	−0″.029		13 33 32	132.510	67.840	13 35 55	
13 38 23.0	97.193	102.893	13 39 39.4		$B=29^{in}.8$	$T=27°.0$		13 33 4.4	132.603	67.826	13 35 30.2	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-28.307$			*a*	...	...	9.4		$x=+321.688$			Focal reading $2^{in}.48$. Power 200. Seeing 2. Weight 2.
13 39 1.2	$\rho=+\ 0.242$							13 34 17.3	$\rho=+\ 0.240$			
$\Delta t=-27.9$	$\iota=+\ 0.267$							$\Delta t=-27.9$	$\iota=+\ 0.030$			
13 38 33.3	$y_0=-27.798$			Eros n. p.			9.3	13 33 49.4	$x_0=+321.958$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
217.					1901 JANUARY 2.						
h m s	r	r	h m s				h m s	r	r	h m s	
7 10 35	103.247	97.082	7 11 58	τ	$-0^h\ 7^m.7$	$-0^h\ 11^m.8$	7 6 20	89.518	110.793	7 7 55	Parallel of micrometer tested on equatorial stars, eight transits telescope east of pier; eight transits telescope west of pier. No deviation of the wire could be noticed.
49	.228	.145	8	ζ	2°.0	3°.0	38	.476	.816	14	
2	.214	.150	14				45	.452	.828	25	
11	.178	.181	27	ρ'	−0″.009	−0″.031	51	.434	.837	34	
7 11 16	103.144	97.193	7 12 35	ρ''	0″.000	0″.000	7 6 58	89.423	110.848	7 8 43	
7 10 58.6	103.202	97.150	7 12 16.4		$B=30^{in}.2$	$T=29^\circ.0$	7 6 42.4	89.461	110.824	7 8 22.2	
	″			Star	y	x Mag.		″			
				a	...	... 11.4					
7 11 37.5 $\Delta t=-30.0$	$y=-30.055$ $\rho=-\ 0.009$ $\iota=-\ 0.019$						7 7 32.3 $\Delta t=-30.0$	$x=-106.091$ $\rho=-\ 0.031$ $\iota=+\ 0.006$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
7 11 7.5	$y_0=-30.083$			Eros s. p.		9.3	7 7 2.3	$x_0=-106.116$			
218.					JANUARY 3.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 34 11	106.750	93.538	5 35 47	τ	$-1^h\ 42^m.6$	$-1^h\ 50^m.8$	5 25 31	72.249	127.988	5 27 56	
38	.617	.581	9	ζ	20°.0	22°.0	46	.230	128.131	21	
48	.562	.599	20				56	.195	.093	40	
1	.581	.627	33	ρ'	−0″.022	−0″.084	6	.174	.111	58	
5 35 10	106.543	93.645	5 36 42	ρ''	+0″.003	+0″.001	5 26 24	72.163	128.130	5 29 11	
5 34 45.6	106.611	93.598	5 36 18.2		$B=30^{in}.4$	$T=25^\circ.0$	5 25 56.6	72.202	128.091	5 28 37.2	
	″			Star	y	x Mag.		″			
				a	..	... 9.4					
5 35 31.9 $\Delta t=-30.2$	$y=-64.623$ $\rho=-\ 0.019$ $\iota=-\ 0.117$			b	0″	−160″ 11.7	5 27 16.9 $\Delta t=-30.2$	$x=-277.551$ $\rho=-\ 0.083$ $\iota=+\ 0.033$			Field taken at $5^h\ 37^m$. Focal reading $2^{in}.48$. Power 388. Seeing 2, Weight 2
5 35 1.7	$y_0=-64.759$			Eros s. p.		9.3	5 26 46.7	$x_0=-277.601$			
219.					JANUARY 3.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 41 21	94.778	105.148	5 42 36	τ	$-1^h\ 35^m.8$	$-1^h\ 30^m.8$	5 46 0	112.758	87.068	5 47 45	
31	.806	.110	52	ζ	19°.0	18°.0	16	.780	87.014	6	
40	.827	.096	2				29	.809	86.992		
48	.843	.082	10	ρ'	−0″.017	−0″.039	40	.842	.980	24	
5 41 56	94.864	105.068	5 43 21	ρ''	+0″.001	0″.000	5 46 52	112.849	86.953	5 48 32	
5 41 39.2	94.824	105.101	5 43 0.2		$B=30^{in}.4$	$T=25^\circ.0$	5 46 27.4	112.808	87.001	5 48 11.8	
	″			Star	y	x Mag.		″			
5 42 19.7 $\Delta t=-30.2$	$y=-51.036$ $\rho=-\ 0.016$ $\iota=-\ 0.048$			b	...	... 11.7	5 47 19.6 $\Delta t=-30.2$	$x=-128.160$ $\rho=-\ 0.039$ $\iota=+\ 0.016$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3
5 41 49.5	$y_0=-51.100$			Eros s. p.		....	5 46 49.4	$x_0=-128.183$			
220.					JANUARY 3.						
h m s	r	r	h m s				h m s	r	r	h m s	
5 54 3	102.502	97.678	5 55 12	τ	$-1^h\ 23^m.1$	$-1^h\ 26^m.2$	5 50 43	90.683	109.252	5 52 14	
16	.493	.710	26	ζ	16°.0	17°.0	57	.699	.246	28	
23	.431	.716	32				7	.714	.225	36	
31	.386	.743	39	ρ'	−0″.008	+0″.028	14	.720	.194	44	
5 54 40	102.381	97.748	5 55 46	ρ''	0″.000	0″.000	5 51 24	90.769	109.150	5 52 55	
5 54 22.6	102.439	97.719	5 55 31.0		$B=30^{in}.4$	$T=24^\circ.0$	5 51 5.0	90.717	109.213	5 52 35.4	
	″			Star	y	x Mag.		″			
5 54 56.8 $\Delta t=-30.2$	$y=-23.439$ $\rho=-\ 0.008$ $\iota=+\ 0.032$			c	...	... 11.5	5 51 50.2 $\Delta t=-30.2$	$x=+91.853$ $\rho=+\ 0.028$ $\iota=+\ 0.010$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
5 54 26.6	$y_0=-23.415$			Eros n. p.		9.3	5 51 20.0	$x_0=+91.891$			

221.

1901 JANUARY 3.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
7 15 0	107.578	92.341	7 16 31	τ	$-0^{h}\ 1^{m}.9$	$+0^{h}\ 3^{m}.0$	7 19 48	99.870	100.345	7 21 9	Thin clouds, though seeing fairly steady; Eros difficult to recognize. Found Eros at $13^{h}\,14^{m}$ but could find no suitable comparison star. Sky hazy and seeing bad.
18	.641	.293	46	ζ	2°.0	2°.0	6	.874	.374	22	
29	.672	.278	52				20	.793	.353	55	
36	.690	.253	59	ρ'	+0″.023	−0″.001	38	.814	.398	8	
7 15 40	107.703	92.234	7 17 5	ρ''	0″.000	0″.000	7 20 48	99.750	100.442	7 22 19	
7 15 24.6	107.657	92.280	7 16 50.6	$B=30^{in}.4$		T=21°.0	7 20 20.0	99.820	100.382	7 21 46.6	
7 16 7.6 $\Delta t=-30.2$	″ $y=+76.364$ $\rho=+0.023$ $\iota=+0.001$			Star c	y ...	x Mag. ... 11.4	7 21 3.3 $\Delta t=-30.2$	″ $x=2.791$ $\rho=-0.001$ $\iota=-0.013$			Focal reading $2^{in}.48$. Power 388. Seeing 1. Weight 2.
7 15 37.4	$y_0=+76.388$			Eros s. f.		9.3	7 20 33.1	$x_0=-2.805$			

222.

JANUARY 4.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 29 58	103.420	96.863	5 31 15	τ	$-1^{h}\ 45^{m}.9$	$-1^{h}\ 49^{m}.3$	5 26 21	93.284	106.680	5 27 49	
12	.390	.900	27	ζ	21°.0	22°.0	38	.301	.631	2	
24	.298	.912	34				51	.323	.616	15	
31	.282	.947	41	ρ'	−0″.011	+0″.019	0	.341	.593	26	
5 30 40	103.262	96.960	5 31 50	ρ''	−0″.001	0″.000	5 27 11	93.364	106.572	5 28 31	
5 30 21.0	103.330	96.916	5 31 33.4	$B=30^{in}.0$		T=34°.0	5 26 48.2	93.323	106.618	5 28 12.6	
5 30 57.2 $\Delta t=-30.3$	″ $y=-31.853$ $\rho=-0.012$ $\iota=+0.026$			Star a	y ...	x Mag. ... 9.2	5 27 30.4 $\Delta t=-30.3$	″ $x=+66.024$ $\rho=+0.019$ $\iota=+0.016$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 30 26.9	$y_0=-31.839$			Eros n. p.		9.3	5 27 0.1	$x_0=+66.059$			

223.

JANUARY 4.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
5 33 26	97.184	102.813	5 34 44	τ	$-1^{h}\ 42^{m}.4$	$-1^{h}\ 39^{m}.6$	5 36 7	105.799	94.463	5 37 29	
40	.212	.786	55	ζ	20°.0	20°.0	23	.773	.534	51	
48	.224	.778	4				31	.742	.540	1	
55	.228	.763	10	ρ'	−0″.009	+0″.016	38	.722	.548	10	
5 34 2	97.245	102.749	5 35 16	ρ''	−0″.001	0″.000	5 36 43	105.706	94.555	5 38 18	
5 33 46.2	97.219	102.778	5 35 1.8	$B=30^{in}.0$		T=34°.0	5 36 28.4	105.748	94.528	5 37 57.8	
5 34 24.0 $\Delta t=-30.3$	″ $y=-27.607$ $\rho=-0.010$ $\iota=+0.024$			Star a	y ...	x Mag. ... 9.2	5 37 13.1 $\Delta t=-30.3$	″ $x=+55.719$ $\rho=+0.016$ $\iota=+0.009$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 33 53.7	$y_0=-27.593$			Eros n. p.		...	5 36 42.8	$x_0=+55.744$			

224.

JANUARY 4.

t	$\Delta\alpha \cos\delta$	$\Delta\alpha' \cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 29 7	95.833	104.410	6 30 18	τ	$-0^{h}\ 46^{m}.7$	$-0^{h}\ 49^{m}.3$	6 26 46	99.700	100.297	6 27 36	Parallel of micrometer tested on equatorial stars, six transits telescope west of pier; six transits telescope east of pier.
19	.802	.462	28	ζ	10°.0	10°.0	1	.718	.283	44	
29	.772	.489	36				10	.724	.271	50	
37	.736	.502	46	ρ'	+0″.013	+0″.001	18	.738	.254	58	
6 29 43	95.717	104.520	6 30 53	ρ''	0″.000	0″.000	6 27 26	99.744	100.245	6 28 7	
6 29 27.0	95.772	104.477	6 30 36.2	$B=30^{in}.0$		T=33°.0	6 27 8.2	99.725	100.270	6 27 51.0	
6 30 1.6 $\Delta t=-30.3$	″ $y=+43.230$ $\rho=+0.013$ $\iota=0.000$			Star a	y ...	x Mag. ... 9.2	6 27 29.6 $\Delta t=-30.3$	″ $x=+2.707$ $\rho=+0.001$ $\iota=-0.010$			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
6 29 31.3	$y_0=+43.243$			Eros n. f.		9.3	6 26 59.3	$x_0=+2.698$			

225. 1901 JANUARY 4.

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′
h m s	r	r	h m s				h m s	r	r	h m s
6 32 38	104.683	95.262	6 33 36	τ	$-0^{h}\ 43^{m}.3$	$-0^{h}\ 40^{m}.7$	6 35 26	99.428	100.704	6 36 11
45	.730	.210	54	ζ	9°.0	8°.0	36	.414	.725	19
51	.756	.176	4	ρ′	+0″.014	0″.002	42	.406	.736	29
59	.776	.163	13	ρ″	0″.000	0″.000	47	.393	.742	35
6 33 4	104.781	95.145	6 34 20				6 35 54	99.385	100.755	6 36 40
6 32 51.4	104.745	95.191	6 34 1.4		$B=30^{in}.0$	$T=33°.0$	6 35 41.0	99.405	100.732	6 36 26.8

t		Star	y	x	Mag.	t		Remarks.
	″	*Star*	*y*	*x*	*Mag.*		″	
	y = +47.447	*a*	...	...	9.2		x = −6.591	Focal reading $2^{in}.48$.
6 33 26.4	ρ = +0.014					6 36 3.9	ρ = 0.002	Power 388.
Δt = −30.3	ι = −0.001					Δt = −30.3	ι = −0.013	Seeing 3.
6 32 56.1	y_0 = +47.460	Eros s. f.			...	6 35 33.6	x_0 = 6.606	Weight 3.

226. JANUARY 5.

h m s	r	r	h m s				h m s	r	r	h m s
5 29 44	108.800	91.651	5 31 28	τ	$-1^{h}\ 44^{m}.6$	$-1^{h}\ 48^{m}.2$	5 26 34	96.522	103.453	5 27 41
3	.685	.672	41	ζ	21°.0	21°.0	46	.536	.441	50
17	.688	.698	50	ρ′	−0″.028	+0″.010	55	.548	.422	58
24	.663	.707	56	ρ″	0″.000	+0″.001	1	.563	.406	4
5 30 41	108.581	91.721	5 32 2				5 27 9	96.576	103.394	5 28 11
5 30 13.8	108.683	91.690	5 31 47.4		$B=30^{in}.1$	$T=33°.0$	5 26 53.0	96.549	103.423	5 27 56.8

	″	*Star*	*y*	*x*	*Mag.*		″	
	y = −84.388	*a*	..	...	10.5		x = +34.137	Field taken at $5^{h}\ 33^{m}$.
5 31 0.6	ρ = −0.028	*b*	+10″	−105″	11.3	5 27 24.9	ρ = +0.011	Focal reading $2^{in}.48$.
Δt = −30.4	ι = +0.013	*c*	−65	−140	11.6	Δt = −30.4	ι = +0.038	Power 388.
5 30 30.2	y_0 = −84.403	Eros n. p.			9.4	5 26 54.5	x_0 = +34.186	Seeing 3. Weight 3.

227. JANUARY 5.

h m s	r	r	h m s				h m s	r	r	h m s
5 34 45	91.987	107.798	5 36 38	τ	$-1^{h}\ 39^{m}.6$	$-1^{h}\ 36^{m}.4$	5 38 18	102.353	97.878	5 39 24
2	92.060	.764	49	ζ	20°.0	19°.0	29	.338	.879	36
12	.126	.735	56	ρ′	0″.026	+0″.006	39	.309	.903	47
20	.135	.710	3	ρ″	0″.000	+0″.001	47	.272	.921	55
5 35 27	92.154	107.700	5 37 9				5 38 54	102.252	97.943	5 40 1
5 35 9.2	92.092	107.741	5 36 55.0		$B=30^{in}.1$	$T=33°.0$	5 38 37.4	102.305	97.905	5 39 44.6

	″	*Star*	*y*	*x*	*Mag.*		″	
	y = −77.715	*a*	...	...	10.5		x = +21.851	Focal reading $2^{in}.48$.
5 36 2.1	ρ = −0.026					5 39 11.0	ρ = +0.007	Power 388.
Δt = −30.4	ι = +0.009					Δt = −30.4	ι = +0.029	Seeing 3.
5 35 31.7	y_0 = −77.732	Eros n. p.			....	5 38 40.6	x_0 = +21.887	Weight 3.

228. JANUARY 5.

h m s	r	r	h m s				h m s	r	r	h m s
6 41 25	100.804	99.202	6 42 15	τ	$-0^{h}\ 33^{m}.4$	$-0^{h}\ 36^{m}.1$	6 38 23	95.892	104.275	6 39 38
32	.836	.194	24	ζ	7°.0	8°.0	45	.840	.324	52
40	.850	.176	35	ρ′	+0″.003	0″.012	53	.822	.344	4
46	.869	.092	51	ρ″	0″.000	0″.000	2	.812	.360	11
6 41 52	100.878	99.071	6 42 58				6 39 9	95.804	104.371	6 40 18
6 41 39.0	100.847	99.147	6 42 36.6		$B=30^{in}.2$	$T=31°.0$	6 38 50.4	95.834	104.335	6 40 0.6

	″	*Star*	*y*	*x*	*Mag.*		″	
	y = +8.442	*a*	...	...	10.4		x = −42.218	Focal reading $2^{in}.48$.
6 42 7.8	ρ = +0.003					6 39 25.5	ρ = 0.012	Power 388.
Δt = −30.4	ι = −0.011					Δt = 30.4	ι = −0.001	Seeing 3.
6 41 37.4	y_0 = +8.434.	Eros s. f.			....	6 38 55.1	x_0 = −42.231	Weight 3.

229. 1901 January 5.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 43 48	98.082	102.258	6 45 26	τ	$-0^{\mathrm{h}}\ 30^{\mathrm{m}}.6$	$-0^{\mathrm{h}}\ 27^{\mathrm{m}}.8$	6 46 48	105.250	95.015	6 48 3	
4	.061	.281	34	ζ	7°.0	6°.0	0	.242	.062	14	
14	.035	.304	41	ρ'	+0″.006	+0″.015	12	.143	.095	22	
23	.018	.319	48	ρ''	0″.000	0″.000	20	.151	099	32	
6 44 29	98.006	102.324	6 45 54				6 47 22	105.137	95.104	6 48 38	
6 44 11.6	98.040	102.297	6 45 40.6		$B=30^{\mathrm{in}}.2$	$T=31^{\circ}.0$	6 47 8.4	105.185	95.075	6 48 21.8	

	″		*Star*	*y*	*x*	*Mag.*		″		
	$y=+21.140$		*a*	..	...	10.4		$x=+50.207$		Field taken at $6^{\mathrm{h}}\ 49^{\mathrm{m}}$. Focal reading $2^{\mathrm{in}}.48$. Power 388. Seeing 3. Weight 3.
6 44 56.1	$\rho=+\ 0.006$		*b*	−20″	−130″	11.3	6 47 45.1	$\rho=+\ 0.015$		
$\Delta t=-30.4$	$\iota=+\ 0.012$		*c*	−65	−180	11.5	$\Delta t=-30.4$	$\iota=-\ 0.006$		
6 44 25.7	$y_0=+21.158$		Eros n f.			....	6 47 14.7	$x_0=+50.216$		

230. January 5.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
12 44 27	103.601	96.245	12 46 4	τ	$+5^{\mathrm{h}}\ 30^{\mathrm{m}}.5$	$+5^{\mathrm{h}}\ 25^{\mathrm{m}}.7$	12 39 15	87.769	112.636	12 41 44	
48	.615	.222	21	ζ	63°.2	62°.3	29	.743	.592	6	
3	.689	.180	32	ρ'	+0″.043	−0″.070	40	.732	.604	22	
13	.718	.157	40	ρ''	−0″.065	+0″.013	53	.734	.674	32	
12 45 21	103.733	96.140	12 46 49				12 40 11	87.693	112.709	12 42 41	
12 44 58.4	103.671	96.189	12 46 29.2		$B=30^{\mathrm{in}}.2$	$T=27^{\circ}.0$	12 39 41.6	87.734	112.643	12 42 17.0	

	″		*Star*	*y*	*x*	*Mag.*		″		
	$y=+37.157$		*a*	...	..	9.4		$x=-123.701$		Field taken at $12^{\mathrm{h}}\ 47^{\mathrm{m}}$. Focal reading $2^{\mathrm{in}}.48$. Power 388. Seeing 3. Weight 3.
12 45 43.8	$\rho=-\ 0.022$		*b*	+135″	+40″.	10.9	12 40 59.3	$\rho=-\ 0.057$		
$\Delta t=-30.5$	$\iota=-\ 0.098$						$\Delta t=-30.5$	$\iota=+\ 0.021$		
12 45 13.3	$y_0=+37.037$		Eros s. f.			9.4	12 40 28.8	$x_0=-123.779$		

231. January 5.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
12 50 2	95.647	104.548	12 51 17	τ	$+5^{\mathrm{h}}\ 35^{\mathrm{m}}.7$	$+5^{\mathrm{h}}\ 39^{\mathrm{m}}.2$	12 52 59	113.884	86.038	12 55 5	
12	.634	.567	26	ζ	64°.1	64°.8	28	.878	.024	16	
20	.610	.586	34	ρ'	+0″.055	−0″.090	45	.899	86.006	26	
27	.602	.594	41	ρ''	−0″.074	+0″.030	54	.922	85.995	33	
12 50 38	95.579	104.602	12 51 47				12 54 1	113.938	85.981	12 55 40	
12 50 19.8	95.614	104.579	12 51 33.0		$B=30^{\mathrm{in}}.2$	$T=27^{\circ}.0$	12 53 37.4	113.904	86.009	12 55 24.0	

	″		*Star*	*y*	*x*	*Mag.*		″		
	$y=+44.522$		*a*	...	...	9.4		$x=-138.529$		Focal reading $2^{\mathrm{in}}.48$. Power 388. Seeing 3. Weight 3.
12 50 56.4	$\rho=-\ 0.019$						12 54 30.7	$\rho=-\ 0.060$		
$\Delta t=-30.5$	$\iota=-\ 0.104$						$\Delta t=-30.5$	$\iota=-\ 0.039$		
12 50 25.9	$y_0=+44.399$		Eros s. f.			...	12 54 0.2	$x_0=-138.628$		

232. January 8.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 21 4	94.521	105.921	6 22 48	τ	$-0^{\mathrm{h}}\ 49^{\mathrm{m}}.8$	$-0^{\mathrm{h}}\ 53^{\mathrm{m}}.6$	6 17 40	106.896	93.065	6 18 57	Cloudy until after 6^{h}.
28	.558	.860	15	ζ	11°.0	12°.0	55	.918	.033	20	
44	.483	.957	21	ρ'	+0″.017	−0″.020	4	.923	.026	28	
56	.451	.986	37	ρ''	0″.000	0″.000	12	.935	93.005	37	
6 22 3	94.420	105.995	6 23 46				6 18 22	106.946	92.946	6 19 52	
6 21 39.0	94.487	105.944	6 23 21.4		$B=30^{\mathrm{in}}.0$	$T=39^{\circ}.0$	6 18 2.6	106.924	93.015	6 19 26.8	

	″		*Star*	*y*	*x*	*Mag.*		″		
	$y=+56.896$		*a*	...	...	10.5		$x=-70.068$		Focal reading $2^{\mathrm{in}}.48$. Power 388. Seeing 3. Weight 3.
6 22 30.2	$\rho=+\ 0.017$						6 18 44.7	$\rho=-\ 0.020$		
$\Delta t=-31.4$	$\iota=-\ 0.023$						$\Delta t=-31.4$	$\iota=-\ 0.014$		
6 21 58.8	$y_0=+56.890$		Eros s. f.			9.4	6 18 13.3	$x_0=-70.102$		

233.

1901 JANUARY 8.

t	Δα cos δ	Δα′ cos δ	t′		A	D	t	Δδ	Δδ′	t′	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 25 51	106.235	93.602	6 27 35	τ	$-0^{h}\,45^{m}.1$	$-0^{h}\,42^{m}.0$	6 29 9	91.940	108.274	6 30 39	
11	.320	.567	47	ζ	10°.0	9°.0	24	.903	.300	57	
27	.281	.548	53				33	.881	.315	4	
45	.381	.539	0	ρ′	+0″.019	−0″.024	51	.864	.330	13	
6 27 8	106.379	93.556	6 28 9	ρ″	0″.000	0″.000	6 30 0	91.859	108.347	6 31 28	
6 26 28.4	106.319	93.562	6 27 52.8		$B=30^{in}.0$	$T=39°.0$	6 29 35.4	91.889	108.313	6 31 4.2	
	″			Star	y	x Mag.		″			
	y = +63.353			a	...	... 10.5		x = −81.564			
6 27 10.6	ρ = + 0.019						6 30 19.8	ρ = − 0.024			Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
Δt = −31.4	ι = 0.021						Δt = −31.4	ι = − 0.017			
6 26 39.2	y_0 = +63.351			Eros s. f.		....	6 29 48.4	x_0 = −81.605			

234.

JANUARY 9.

h m s	r	r	h m s				h m s	r	r	h m s	
6 1 0	107.100	92.805	6 2 18	τ	$-1^{h}\,9^{m}.3$	$-1^{h}\,12^{m}.6$	5 57 48	97.872	102.324	5 58 58	
18	.132	.733	31	ζ	14°.0	15°.0	3	.845	.367	14	
27	.169	.718	39				13	.824	.378	23	
34	.190	.675	53	ρ′	+0″.021	−0″.006	20	.819	.444	32	
6 1 41	107.200	92.666	6 3 0	ρ″	0″.000	0″.000	5 58 26	97.798	102.437	5 59 38	
6 1 24.0	107.158	92.719	6 2 40.2		$B=29^{in}.9$	$T=50°.0$	5 58 10.0	97.832	102.390	5 59 21.0	
	″			Star	y	x Mag.		″			
	y = +71.706			a	..	.. 10.9		x = −22.635			Field taken at $6^{h}\,3^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
6 2 2.1	ρ = + 0.021			b	+45″	−15″ 12.0	5 58 45.5	ρ = − 0.006			
Δt = −31.9	ι = − 0.008						Δt = −31.9	ι = − 0.022			
6 1 30.2	y_0 = +71.719			Eros s. f.		9.5	5 58 13.6	x_0 = −22.663			

235.

JANUARY 9.

h m s	r	r	h m s				h m s	r	r	h m s	
6 5 13	92.469	107.908	6 6 35	τ	$-1^{h}\,5^{m}.0$	$1^{h}\,2^{m}.3$	6 8 4	103.400	96.573	6 9 12	
30	.383	.925	45	ζ	14°.0	13°.0	21	.431	.504	23	
39	.305	.971	55				31	.448	.483	30	
46	.249	107.983	4	ρ′	+0″.023	−0″.010	39	.465	.461	39	
6 5 53	92.220	108.005	6 7 14	ρ″	0″.000	0″.000	6 8 45	103.484	96.446	6 9 47	
6 5 36.2	92.325	107.958	6 6 54.6		$B=29^{in}.9$	$T=50°.0$	6 8 28.0	103.445	96.493	6 9 30.2	
	″			Star	y	x Mag.		″			
	y = +77.636			a	...	... 10.9		x = −34.525			
6 6 15.4	ρ = + 0.023						6 8 59.1	ρ = − 0.010			Focal reading $2^{in}.48$. Power 388. Seeing —. Weight 3.
Δt = −31.9	ι = − 0.010						Δt = −31.9	ι = − 0.024			
6 5 43.5	y_0 = +77.649			Eros s. f.		....	6 8 27.2	x_0 = −34.559			

236.

JANUARY 13.

h m s	r	r	h m s				h m s	r	r	h m s	
5 58 20	89.362	111.070	6 0 35	τ	$-1^{h}\,7^{m}.8$	$-1^{h}\,11^{m}.9$	5 54 39	100.368	99.545	5 56 7	
49	.285	.128	55	ζ	15°.0	16°.0	7	.393	.493	28	
4	.216	.158	3				16	.416	.471	38	
12	.221	.196	11	ρ′	+0″.033	−0″.001	30	.435	.451	50	
5 59 20	89.190	111.239	6 1 21	ρ″	0″.000	0″.001	5 55 43	100.446	99.452	5 57 2	
5 58 57.0	89.255	111.158	6 1 1.0		$B=29^{in}.8$	$T=36°.0$	5 55 15.0	100.412	99.482	5 56 37.0	
	″			Star	y	x Mag.		″			
	y = +108.773			a	...	... 11.9		x = − 4.619			
5 59 59.0	ρ = + 0.033						5 55 56.0	ρ = − 0.002			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
Δt = −34.3	ι = − 0.002						Δt = −34.3	ι = − 0.032			
5 59 24.7	y_0 = +108.804			Eros s. f.		9.5	5 55 21.7	x_0 = − 4.653			

237. 1901 JANUARY 13.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
6 3 47	111.516	88.289	6 5 14	τ	$-1^h\ 3^m.0$	$-1^h\ 0^m.1$		6 6 53	98.301	101.797	6 8 8	
53	.568	.251	29	ζ	14°.8	14°.0		7	.295	.838	28	
3	.584	.225	37					14	.264	.924	40	
10	.607	.200	43	ρ'	$+0''.035$	$-0''.005$		25	.252	.940	52	
6 4 22	111.653	88.182	6 5 49	ρ''	$0''.000$	$-0''.001$		6 7 35	98.240	101.950	6 9 8	
6 4 3.0	111.586	88.229	6 5 34.4		$B=29^{in}.8$	$T=36°.0$		6 7 14.8	98.270	101.890	6 8 39.2	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=+115.993$			*a*	...	...	11.9		$x=-17.977$			Focal reading 2in.48. Power 388. Seeing 2. Weight 2.
6 4 48.7	$\rho=+\ 0.035$							6 7 57.0	$\rho=-\ 0.006$			
$\Delta t=-34.3$	$\iota=-\ 0.004$							$\Delta t=-34.3$	$\iota=-\ 0.036$			
6 4 14.4	$y_0=+116.024$			Eros s. f.			....	6 7 22.7	$x_0=-18.019$			
238.					JANUARY 13.							
h m s	r	r	h m s					h m s	r	r	h m s	
12 10 40	93.153	106.628	12 12 27	τ	$+5^h\ 4^m.4$	$+5^h\ 0^m.6$		12 6 59	99.490	100.465	12 8 26	Parallel of micrometer tested on equatorial stars five transits, telescope east of pier.
56	.224	.612	41	ζ	60°.2	59°.5		25	.465	.447	39	
7	.313	.540	2					42	.501	.431	48	
17	.335	.455	15	ρ'	$-0''.063$	$+0''.002$		52	.565	.413	59	
12 11 27	93.349	106.412	12 13 27	ρ''	$0''.000$	$-0''.026$		12 8 2	99.589	100.386	12 9 10	
12 11 5.4	93.275	106.529	12 12 58.4		$B=29^{in}.8$	$T=30°.0$		12 7 36.0	99.522	100.428	12 8 48.4	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-65.821$			*a*	...	...	11.2		$x=+\ 4.500$			Field taken at 12h 15m. Focal reading 2in.48. Power 388. Seeing 2. Weight 3.
12 12 1.9	$\rho=-\ 0.063$			*b*	0″	−105″	11.4	12 8 12.2	$\rho=-\ 0.024$			
$\Delta t=-34.5$	$\iota=\ 0.000$							$\Delta t=-34.5$	$\iota=+\ 0.054$			
12 11 27.4	$y_0=-65.884$			Eros n. p.			9.5	12 7 37.7	$x_0=+\ 4.530$			
239.					JANUARY 13.							
h m s	r	r	h m s					h m s	r	r	h m s	
12 16 3	106.005	94.381	12 17 36	τ	$+5^h\ 9^m.6$	$+5^h\ 13^m.3$		12 19 29	99.497	101.137	12 21 19	
15	105.990	.470	48	ζ	61°.2	61°.9		57	.270	.148	29	
25	.948	.498	59					13	.138	.167	39	
33	.917	.514	9	ρ'	$-0''.058$	$-0''.005$		33	.112	.193	53	
12 16 44	105.892	94.527	12 18 19	ρ''	$-0''.002$	$-0''.022$		12 20 46	99.082	101.281	12 22 9	
12 16 24.0	105.950	94.478	12 17 58.2		$B=29^{in}.8$	$T=30°.0$		12 20 11.6	99.220	101.185	12 21 41.8	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-56.970$			*a*	...	...	11.2		$x=-\ 9.759$			Field taken at 12h 24m. Focal reading 2in.48. Power 388. Seeing 2. Weight 3.
12 17 11.1	$\rho=-\ 0.060$			*b*	0″	−120″	....	12 20 56.7	$\rho=-\ 0.027$			
$\Delta t=-34.5$	$\iota=-\ 0.004$							$\Delta t=-34.5$	$\iota=+\ 0.038$			
12 16 36.6	$y_0=-57.034$			Eros s. p.			....	12 20 22.2	$x_0=-\ 9.748$			
240.					JANUARY 15.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 23 20	108.870	91.398	6 24 46	τ	$-0^h\ 41^m.8$	$-0^h\ 44^m.6$		6 20 42	91.353	108.850	6 22 6	Eros examined for disk with power 888, seeing 4; it appears clearly to have a disk, and when compared to movable dark wire placed in front of the image the two were adjudged exactly equal. The diameter of the wire is 0″.12, which is therefore the apparent diameter of Eros.
41	.809	.368	58	ζ	11°.0	12°.0		58	.328	.873	14	
49	.772	.320	8					7	.314	.893	24	
57	.761	.502	37	ρ'	$-0''.074$	$-0''.025$		13	.303	.915	29	
6 24 4	108.700	91.568	6 25 49	ρ''	$0''.000$	$+0''.001$		6 21 27	91.252	108.931	6 22 36	
6 23 46.2	108.782	91.431	6 25 15.6		$B=29^{in}.6$	$T=51°.0$		6 21 5.4	91.310	108.892	6 22 21.8	
	″			*Star*	*y*	*x*	*Mag.*		″			
	$y=-86.167$			*a*	...	...	11.4		$x=-87.313$			Field taken at 6h 27m. Focal reading 2in.48. Power 388. Seeing 3-4. Weight 3.
6 24 30.9	$\rho=-\ 0.074$			*b*	−90″	+15″	12.1	6 21 43.6	$\rho=-\ 0.024$			
$\Delta t=-35.6$	$\iota=-\ 0.023$			*c*	−20	−120	12.5	$\Delta t=-35.6$	$\iota=+\ 0.024$			
6 23 55.3	$y_0=-86.264$			Eros s. p.			9.6	6 21 8.0	$x_0=-87.313$			

241. 1901 JANUARY 15.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s				h m s	r	r	h m s	
6 28 24	91.975	107.772	6 29 49	τ	$-0^{h}\ 36^{m}.8$	$-0^{h}\ 34^{m}.3$	6 31 37	109.856	90.048	6 32 48	
39	92.040	.716	4	ζ	$10^{\circ}.0$	$10^{\circ}.0$	48	.921	90.022	58	
48	.061	.780	18	ρ'	$-0''.022$	$-0''.028$	56	.960	89.989	8	
57	.081	.722	28	ρ''	$0''.000$	$0''.000$	4	.970	.984	19	
6 29 5	92.094	107.690	6 30 37				6 32 13	109.989	89.962	6 33 28	
6 28 46.6	92.050	107.736	6 30 17.2		$B=29^{in}.6$	$T=51^{\circ}.0$	6 31 55.6	109.939	90.001	6 33 8.2	

	″		Star	y	x	Mag.		″		
	$y=-77.899$		a	...	...	11.4		$x=-99.014$		Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
6 29 31.9	$\rho=-\ 0.022$						6 32 1.9	$\rho=-\ 0.028$		
$\Delta t=-35.6$	$\iota=-\ 0.023$						$\Delta t=-35.6$	$\iota=+\ 0.017$		
6 28 56.3	$y_0=-77.944$		Eros s. p.			....	6 31 26.3	$x_0=-99.025$		

242. JANUARY 16.

h m s	r	r	h m s				h m s	r	r	h m s	
5 54 47	115.962	84.458	5 56 48	τ	$-1^{h}\ 9^{m}.4$	$-1^{h}\ 13^{m}.3$	5 50 51	93.197	106.797	5 52 45	
4	.906	.507	8	ζ	$16^{\circ}.0$	$17^{\circ}.0$	31	.150	.782	58	
20	.837	.555	21	ρ'	$-0''.045$	$+0''.019$	40	.218	.745	7	
29	.821	.587	29	ρ''	$-0''.001$	$+0''.002$	50	.237	.716	13	
5 55 39	115.793	84.639	5 57 41				5 52 6	93.254	106.692	5 53 20	
5 55 15.8	115.864	84.549	5 57 17.4		$B=29^{in}.3$	$T=59^{\circ}.0$	5 51 35.6	93.211	106.746	5 53 4.6	

	″		Star	y	x	Mag.		″		
	$y=-155.513$		a	...	...	11.4		$x=+67.216$		Focal reading $2^{in}.48$. Power 388. Seeing 3. Weight 3.
5 56 16.6	$\rho=-\ 0.046$						5 52 20.1	$\rho=+\ 0.021$		
$\Delta t=-36.2$	$\iota=+\ 0.021$						$\Delta t=-36.2$	$\iota=+\ 0.054$		
5 55 40.4	$y_0=-155.538$		Eros n. p.			9.6	5 51 43.9	$x_0=+67.291$		

243. JANUARY 16.

h m s	r	r	h m s				h m s	r	r	h m s	
6 45 30	92.458	107.156	6 47 32	τ	$-0^{h}\ 18^{m}.5$	$-0^{h}\ 11^{m}.8$	6 50 18	100.648	99.610	6 56 44	Eros again examined for disc with power 888. Image a little fuzzy; no disc with certainty.
55	.576	.064	59	ζ	$8^{\circ}.0$	$8^{\circ}.0$	34	.612	.634	53	
11	.723	.112	18	ρ'	$-0''.020$	$+0''.001$	47	.592	.667	0	
24	.736	.070	25	ρ''	$0''.000$	$0''.000$	55	.574	.668	10	
6 46 39	92.770	107.029	6 48 38				6 51 4	100.561	99.690	6 57 18	
6 46 7.8	92.653	107.086	6 48 10.4		$B=29^{in}.3$	$T=57^{\circ}.0$	6 50 43.6	100.597	99.654	6 57 1.0	

	″		Star	y	x	Mag.		″		
	$y=-71.676$		a	...	...	11.4		$x=+\ 4.683$		Field taken at $6^{h}\ 55^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing —. Weight 3.
6 47 9.1	$\rho=-\ 0.020$		b	$0''$	$+45''$	12.0	6 53 52.3	$\rho=+\ 0.001$		
$\Delta t=-36.2$	$\iota=+\ 0.003$						$\Delta t=-36.2$	$\iota=+\ 0.011$		
6 46 32.9	$y_0=-71.693$		Eros n. p.			9.6	6 53 16.1	$x_0=+\ 4.695$		

244. JANUARY 19.

h m s	r	r	h m s				h m s	r	r	h m s	
6 17 21	114.552	85.240	6 19 16	τ	$-0^{h}\ 45^{m}.0$	$-0^{h}\ 49^{m}.0$	6 13 40	91.100	109.125	6 15 13	Parallel of micrometer tested on equatorial stars, six transits telescope west of pier.
43	.580	.198	34	ζ	$13^{\circ}.0$	$13^{\circ}.0$	53	.078	.156	26	
59	.678	.123	52	ρ'	$+0''.045$	$-0''.028$	3	.061	.170	34	
11	.700	.118	0	ρ''	$+0''.001$	$-0''.001$	17	.042	.198	43	
6 18 24	114.730	85.101	6 20 8				6 14 26	91.027	109.219	6 15 51	
6 17 55.6	114.648	85.156	6 19 46.0		$B=30^{in}.2$	$T=19^{\circ}.0$	6 14 3.8	91.062	109.174	6 15 33.4	

	″		Star	y	x	Mag.		″		
	$y=+146.460$		a	...	...	9.6		$x=-89.946$		Field taken at $6^{h}\ 21^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 1–2. Weight 2.
6 18 50.8	$\rho=+\ 0.046$		b	$+185''$	$+\ 15''$	11.9	6 14 48.6	$\rho=-\ 0.029$		
$\Delta t=-38.4$	$\iota=-\ 0.024$		c	$+195$	-115	12.2	$\Delta t=-38.4$	$\iota=-\ 0.036$		
6 18 12.4	$y_0=+146.482$		Eros s. f.			9.6	6 14 10.2	$x_0=-90.011$		

245. 1901 JANUARY 19.

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D		t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
h m s	r	r	h m s					h m s	r	r	h m s	
6 23 32	84.530	115.935	6 25 19	τ	$-0^{h}\ 39^{m}.0$	$-0^{h}\ 34^{m}.9$		6 27 50	110.461	89.458	6 29 19	
50	.462	115.981	34	ζ	12°.0	11°.0		1	.490	.428	34	
58	.433	116.016	43					11	.505	.412	44	
7	.410	.048	56	ρ'	+0″.048	−0″.032		18	.523	.389	53	
6 24 15	84.381	116.080	6 26 4	ρ''	+0″.001	−0″.001		6 28 28	110.528	89.362	6 29 59	
6 23 56.4	84.443	116.012	6 25 43.2		$B=30^{in}.2$	$T=19°.0$		6 28 9.6	110.501	89.410	6 29 41.8	
	″			Star	y	x	Mag.		″			
	$y = +156.775$			a	...	...	9.6		$x = -104.740$			
6 24 49.8	$\rho = +\ 0.049$							6 28 55.7	$\rho = -\ 0.033$			Focal reading $2^{in}.48$. Power 388. Seeing 1-2. Weight 2.
$\Delta t = -38.4$	$\iota = -\ 0.024$							$\Delta t = -38.4$	$\iota = -\ 0.040$			
6 24 11.4	$y_0 = +156.800$			Eros s. f.			...	6 28 17.3	$x_0 = -104.813$			
246.					JANUARY 20.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 17 18	104.769	95.271	6 18 37	τ	$-0^{h}\ 45^{m}.0$	$-0^{h}\ 48^{m}.8$		6 13 9	86.723	113.546	6 14 58	
33	.799	.220	47	ζ	13°.0	13°.0		27	.704	.639	21	
43	.848	.160	57					40	.628	.660	30	
51	.863	.135	7	ρ'	+0″.014	−0″.041		48	.612	.673	40	
6 17 58	104.882	95.120	6 19 14	ρ''	+0″.001	0″.000		6 13 58	86.588	113.693	6 15 49	
6 17 40.6	104.832	95.181	6 18 56.4		$B=30^{in}.2$	$T=33°.0$		6 13 36.4	86.651	113.642	6 15 27.6	
	″			Star	y	x	Mag.		″			
	$y = +47.927$			a	...	...	9.8		$x = -134.040$			
6 18 18.5	$\rho = +\ 0.015$			b	−120″	0″	11.9	6 14 32.0	$\rho = -\ 0.041$			Field taken at $6^{h}\ 20^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
$\Delta t = -39.2$	$\iota = -\ 0.036$							$\Delta t = -39.2$	$\iota = -\ 0.011$			
6 17 39.3	$y_0 = +47.906$			Eros s. f.			9.7	6 13 52.8	$x_0 = -134.092$			
247.					JANUARY 20.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 21 51	94.693	105.628	6 23 19	τ	$-0^{h}\ 40^{m}.4$	$-0^{h}\ 36^{m}.7$		6 25 26	114.658	85.176	6 27 14	
8	.571	.671	34	ζ	12°.0	12°.0		(34)	.704	.128	23	
16	.548	.753	42					42	.749	.109	29	
26	.512	.810	49	ρ'	+0″.017	−0″.044		6	.715	.083	35	
6 22 33	94.480	105.871	6 23 56	ρ''	+0″.001	0″.000		6 26 19	114.771	85.080	6 27 41	
6 22 14.8	94.561	105.747	6 23 40.0		$B=30^{in}.2$	$T=33°.0$		6 25 49.4	114.719	85.115	6 27 28.4	
	″			Star	y	x	Mag.		″			
	$y = +55.551$			a	...	...	9.8		$x = -147.016$			
6 22 57.4	$\rho = +\ 0.018$							6 26 38.9	$\rho = -\ 0.044$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 2.
$\Delta t = -39.2$	$\iota = -\ 0.036$							$\Delta t = -39.2$	$\iota = -\ 0.015$			
6 22 18.2	$y_0 = +55.533$			Eros s. f.			...	6 25 59.7	$x_0 = -147.075$			
248.					JANUARY 22.							
h m s	r	r	h m s					h m s	r	r	h m s	
6 41 40	104.951	94.878	6 43 0	τ	$-0^{h}\ 19^{m}.5$	$-0^{h}\ 22^{m}.4$		6 38 55	94.308	105.612	6 40 21	Parallel of micrometer tested on equatorial stars, six transits telescope west of pier.
58	104.992	.853	21	ζ	11°.0	11°.0		9	.332	.591	31	
11	105.020	.796	34					21	.349	.572	37	
18	.051	.781	43	ρ'	+0″.015	+0″.017		29	.365	.562	42	
6 42 26	105.071	94.763	6 43 49	ρ''	0″.000	0″.000		6 39 36	94.374	105.549	6 40 49	
6 42 6.6	105.017	94.814	6 43 29.4		$B=30^{in}.0$	$T=39°.0$		6 39 18.0	94.346	105.577	6 40 36.0	
	″			Star	y	x	Mag.		″			
	$y = +50.668$			a	...	...	11.8		$x = +55.774$			
6 42 48.0	$\rho = +\ 0.015$			b	−20″	−110″	11.6	6 39 57.0	$\rho = +\ 0.017$			Field taken at $6^{h}\ 45^{m}$. Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
$\Delta t = -40.7$	$\iota = +\ 0.011$							$\Delta t = -40.7$	$\iota = -\ 0.009$			
6 42 7.3	$y_0 = +50.694$			Eros n. f.			9.7	6 39 16.3	$x_0 = +55.782$			

t	$\Delta\alpha\cos\delta$	$\Delta\alpha'\cos\delta$	t'		A	D	t	$\Delta\delta$	$\Delta\delta'$	t'	Remarks.
249.					1901 JANUARY 22.						
h m s	r	r	h m s				h m s	r	r	h m s	
6 46 50	94.234	106.132	6 48 45	τ	$-0^h\ 14^m.1$	$-0^h\ 10^m.7$	6 50 19	104.596	95.608	6 51 57	
9	.208	.175	0	ζ	$10^\circ.0$	$10^\circ.0$	32	.564	.671	16	
19	.145	.223	9				42	.552	.668	36	
29	.120	.268	17	ρ'	$+0''.017$	$+0''.013$	51	.548	.685	47	
6 47 36	94.103	106.302	6 49 24	ρ''	$0''.000$	$0''.000$	6 51 3	104.523	95.710	6 52 54	
6 47 16.6	94.162	106.220	6 49 7.0		$B=30^{in}.0$	$T=38^\circ.0$	6 50 41.4	104.557	95.668	6 52 30.0	
	″			*Star*	*y* ,	*x* *Mag.*		″			
	$y=+59.882$			*a*	...	... 11.8		$x=+44.144$			Focal reading $2^{in}.48$. Power 388. Seeing 2. Weight 3.
6 48 11.8	$\rho=+\ 0.017$						6 51 35.7	$\rho=+\ 0.013$			
$\Delta t=-40.7$	$\iota=+\ 0.010$						$\Delta t=-40.7$	$\iota=-\ 0.013$			
6 47 31.1	$y_0=+59.909$			Eros n. f.		....	6 50 55.0	$x_0=+44.144$			
250.					JANUARY 29.						
h m s	r	r	h m s				h m s	r	r	h m s	The observed t's have been increased 3^m and the Δt's decreased the same amount.
6 51 11	112.450	88.061	6 52 56	τ	$-0^h\ 6^m.9$	$-0^h\ 9^m.8$	6 47 25	82.618	117.694	6 49 12	
34	.351	.152	21	ζ	$10^\circ.0$	$10^\circ.0$	39	.611	.725	26	
44	.322	.165	37				51	.578	.763	33	
56	.288	.193	47	ρ'	$-0''.035$	$-0''.053$	3	.559	.784	42	
6 52 6	112.270	88.221	6 53 55	ρ''	$0''.000$	$0''.000$	6 48 16	82.509	117.797	6 49 50	
6 51 42.0	112.336	88.158	6 53 31.2		$B=29^{in}.6$	$T=32^\circ.0$	6 47 50.8	82.575	117.753	6 49 32.6	
	″			*Star*	*y*	*x* *Mag.*		″			
	$y=-120.074$			*a*	...	.... 10.5		$x=-174.702$			Focal reading $2^{in}.47$. Power 388. Seeing 3. Weight 3.
6 52 36.6	$\rho=-\ 0.035$						6 48 41.7	$\rho=-\ 0.053$			
$\Delta t=+27.4$	$\iota=-\ 0.030$						$\Delta t=+27.4$	$\iota=+\ 0.022$			
6 53 4.0	$y_0=-120.139$			Eros s. p.		10.0	6 49 9.1	$x_0=-174.733$			

Corrections to be applied to y_0 *and* x_0 *of the preceding pages.*

NO.	ρ'''		NO.	ρ'''		NO.	ρ'''		NO.	ρ'''		NO.	ρ'''	
	δy_0	δx_0		δy_0	δx_0		δy_0	δx_0		δy_0	δx_0		δy_0	δx_0
	″	″		″	″		″	″		″	″		″	″
1	+0.019	−0.015	51	+0.006	+0.001	101	+0.071	+0.003	151	+0.011	−0.104	201	0.002	−0.002
2	+0.007	−0.025	52	+0.009	+0.010	102	+0.037	+0.022	152	0.010	0.000	202	−0.002	−0.002
3	+0.010	−0.016	53	0.000	+0.003	103	−0.069	−0.046	153	+0.011	0.006	203	−0.028	+0.008
4	−0.002	+0.017	54	+0.010	−0.001	104	+0.040	+0.042	154	+0.004	−0.004	204	+0.011	−0.015
5	−0.013	−0.012	55	+0.014	+0.002	105	+0.003	+0.048	155	+0.027	−0.051	205	+0.002	0.010
6	0.017	....	56	+0.030	+0.016	106	−0.014	−0.008	156	−0.013	+0.007	206	−0.003	+0.021
7	−0.003	−0.008	57	+0.032	−0.028	107	−0.013	0.004	157	−0.013	+0.006	207	+0.014	+0.014
8	+0.008	−0.005	58	+0.044	−0.007	108	−0.012	+0.013	158	+0.017	+0.005	208	0.000	+0.002
9	+0.022	−0.001	59	−0.020	+0.008	109	−0.050	+0.064	159	+0.004	+0.002	209	0.024	+0.074
10	+0.009	−0.004	60	+0.024	+0.023	110	−0.062	−0.019	160	+0.024	−0.037	210	0.000	0.000
11	+0.008	−0.006	61	+0.012	+0.026	111	−0.015	−0.004	161	+0.028	−0.037	211	−0.001	−0.001
12	+0.005	−0.007	62	+0.023	0.013	112	+0.021	+0.003	162	+0.004	0.000	212	+0.004	−0.014
13	+0.019	−0.059	63	+0.019	−0.028	113	−0.020	−0.040	163	+0.004	−0.001	213	+0.014	+0.006
14	+0.006	−0.027	64	−0.015	−0.005	114	+0.036	−0.053	164	+0.001	−0.001	214	−0.001	0.000
15	−0.015	+0.003	65	+0.036	−0.031	115	−0.016	−0.002	165	−0.005	−0.002	215	0.000	0.000
16	−0.021	+0.003	66	+0.017	+0.023	116	+0.014	−0.010	166	+0.087	0.072	216	−0.162	−0.017
17	+0.007	−0.009	67	+0.041	0.000	117	−0.007	−0.037	167	−0.017	−0.017	217	0.001	0.000
18	+0.010	−0.007	68	+0.014	+0.019	118	−0.007	+0.014	168	−0.008	+0.022	218	−0.023	+0.007
19	+0.014	−0.005	69	+0.021	+0.029	119	+0.003	−0.002	169	−0.008	+0.019	219	−0.009	+0.003
20	+0.038	+0.009	70	−0.009	−0.023	120	+0.004	−0.008	170	−0.001	+0.006	220	+0.006	+0.002
21	+0.011	0.000	71	+0.012	+0.020	121	+0.033	+0.024	171	+0.001	+0.004	221	0.000	0 000
22	−0.017	−0.005	72	+0.006	+0.009	122	0.001	−0.019	172	+0.004	0.016	222	+0.005	+0.003
23	+0.036	+0.006	73	+0.003	+0.004	123	−0.002	−0.012	173	−0.006	+0.010	223	+0.005	+0.002
24	+0.034	+0.004	74	−0.072	−0.024	124	+0.007	+0.021	174	+0.002	−0.015	224	0.000	−0.001
25	+0.005	−0.057	75	+0.006	+0.008	125	+0.002	−0.021	175	−0.001	+0.001	225	0.000	−0.002
26	−0.022	−0.031	76	−0.050	−0.008	126	−0.006	0.000	176	+0.001	0.000	226	+0.002	+0.007
27	0.000	−0.016	77	−0.013	+0.047	127	0.000	0.002	177	−0.001	0.001	227	+0.002	+0.005
28	−0.015	−0.022	78	−0.006	+0.050	128	−0.001	−0.001	178	−0.048	0.000	228	−0.001	0.000
29	−0.021	−0.026	79	−0.003	+0.049	129	−0.009	+0.009	179	+0.010	+0.004	229	+0.001	−0.001
30	−0.019	−0.009	80	+0.069	+0.099	130	−0.009	+0.009	180	+0.027	−0.033	230	+0.048	+0.010
31	+0.029	−0.010	81	+0.066	+0.001	131	+0.002	−0.009	181	0.012	+0.009	231	+0.052	+0.020
32	−0.010	−0.006	82	+0.046	+0.027	132	0.000	−0.007	182	−0.009	+0.001	232	−0.003	−0.002
33	+0.007	−0.041	83	−0.038	−0.015	133	−0.007	+0.001	183	+0.005	+0.002	233	−0.002	−0.003
34	+0.020	+0.008	84	+0.016	−0.023	134	+0.007	0.002	184	−0.060	0.000	234	−0.001	−0.003
35	+0.065	−0.060	85	−0.081	+0.039	135	+0.057	....	185	−0.074	+0.001	235	−0.001	−0.003
36	−0.048	+0.018	86	+0.012	+0.022	136	+0.020	+0.005	186	+0.001	+0.024	236	0.000	−0.005
37	−0.002	+0.027	87	+0.012	+0.038	137	+0.011	−0.027	187	−0.001	+0.020	237	−0.001	−0.005
38	−0.004	+0.009	88	−0.014	−0.021	138	−0.002	+0.004	188	0.005	+0.003	238	0.000	0.020
39	−0.007	+0.007	89	−0.017	−0.044	139	0.004	0.004	189	−0.002	−0.002	239	+0.002	−0.015
40	−0.016	+0.003	90	−0.018	+0.074	140	+0.102	−0.035	190	0.000	−0.045	240	−0.002	+0.002
41	−0.021	+0.001	91	+0.040	−0.025	141	+0.120	−0.036	191	−0.010	−0.006	241	−0.002	+0.001
42	−0.020	+0.041	92	+0.021	+0.009	142	+0.026	−0.033	192	0.000	−0.002	242	+0.003	+0.007
43	+0.010	+0.044	93	+0.080	+0.008	143	+0.022	−0.032	193	0.000	+0.002	243	0.000	0.000
44	+0.016	+0.044	94	+0.057	+0.021	144	+0.004	−0.014	194	−0.003	+0.004	244	−0.003	−0.004
45	+0.011	−0.002	95	+0.079	+0.031	145	+0.002	−0.013	195	+0.003	−0.021	245	−0.002	0.004
46	+0.001	−0.011	96	−0.063	−0.014	146	+0.017	+0.042	196	−0.003	+0.004	246	−0.004	−0.001
47	−0.003	−0.015	97	+0.033	−0.012	147	−0.052	0.057	197	+0.007	0.000	247	−0.003	−0.001
48	−0.061	−0.048	98	−0.034	+0.015	148	−0.015	+0.003	198	0.000	+0.001	248	+0.001	−0.001
49	−0.002	−0.004	99	+0.008	−0.011	149	+0.016	−0.003	199	+0.009	+0.003	249	0.000	0.000
50	+0.001	−0.002	100	0.031	+0.022	150	−0.017	+0.004	200	+0.007	+0.001	250	0.001	+0.001

$\delta y_0 = -\mu x \tan Y \tan \delta.$ $\delta x_0 = +\mu y \tan Y \tan \delta.$

RESULTS

OF

OBSERVATIONS.

A 67

RESULTS

OF

OBSERVATIONS OF EROS.

NO.	DATE.	WASHINGTON MEAN TIME.			y_0	WASHINGTON MEAN TIME.			x_0	COMP. STAR.	WT.
	1900	h	m	s	"	h	m	s	"	m	
1	October 9	7	28	34.2	−29.331	7	34	29.8	+40.944	11.5	2
2	9	7	40	35.6	+53.279	7	44	39.6	+18.211	12.0	3
3	9	8	33	8.1	+43.710	8	37	26.2	+31.050	12.0	3
4	9	8	43	0.8	−46.793	8	47	15.1	−1.850	11.2	3
5	9	17	28	21.4	−37.993	17	33	1.8	+48.614	10.0	2
6	9	17	38	47.5	−40.346	..	..	....	......	10.0	3
7	10	7	13	29.0	+16.314	7	16	56.9	−2.316	10.2	3
8	10	7	36	6.5	+11.955	7	40	6.9	+18.683	10.5	3
9	10	8	21	41.2	+2.797	8	25	52.6	+60.116	10.5	3
10	10	16	18	2.1	−19.332	16	19	53.1	−42.488	11.5	3
11	10	16	31	57.0	−22.909	16	38	8.1	−31.123	11.4	3
12	10	16	48	40.0	−27.183	16	53	1.5	−18.931	11.4	2
13	11	8	20	5.9	+157.798	8	28	18.1	+56.049	11.2	3
14	11	8	49	32.2	+83.779	8	53	42.9	+21.950	12.2	4
15	11	16	31	9.3	+15.334	16	35	50.8	+70.645	11.0	3
16	11	16	50	12.2	+10.446	16	54	7.3	+85.625	11.2	3
17	15	6	37	10.7	+16.568	6	40	36.0	+14.650	10.2	3
18	15	6	44	34.3	+14.445	6	48	58.0	+21.692	10.2	3
19	15	6	53	43.7	+11.122	6	56	41.0	+27.898	10.2	3
20	15	8	32	46.6	−22.805	8	37	19.8	+112.296	10.5	3
21	15	8	43	34.6	+2.427	8	47	1.6	+35.189	11.8	3
22	15	16	34	2.1	−15.200	16	39	16.1	+68.609	11.5	3
23	15	16	52	24.8	+22.760	16	57	48.1	−117.194	10.4	1
24	15	17	13	59.8	+14.286	17	18	12.6	−101.607	10.4	2
25	16	6	55	26.0	+109.726	6	59	16.8	+14.953	11.8	3
26	16	7	33	4.0	+71.884	7	36	39.6	−45.709	11.9	3
27	16	8	34	2.6	+49.062	8	39	4.0	+4.737	11.8	3
28	16	16	55	47.9	−62.977	17	0	31.1	+51.898	7.5	2
29	16	17	12	34.7	−69.761	17	17	10.9	+63.953	7.5	2
30	17	6	7	30.7	+16.178	6	10	56.9	−25.865	11.8	3
31	17	6	15	17.4	+17.282	6	18	34.4	+46.728	11.8	3
32	17	6	22	36.1	+10.894	6	25	45.7	−13.764	11.8	4
33	17	16	23	39.4	−140.388	16	29	21.1	−19.795	10.1	4
34	17	17	6	37.1	+26.002	17	10	29.4	−54.719	11.6	3
35	18	6	17	53.9	+104.728	6	23	2.9	+109.585	10.0	2
36	18	6	30	5.9	−28.270	6	34	34.8	−77.748	11.8	2
37	18	8	6	52.7	−69.037	8	10	52.1	−1.640	11.6	2
38	18	16	15	19.8	+34.683	16	19	33.3	+17.487	11.4	3
39	18	16	30	24.0	+27.255	16	34	24.3	+27.134	11.4	3
40	18	17	3	59.0	+11.246	17	7	43.6	+50.005	11.4	3
41	18	17	17	13.8	+6.084	17	20	54.3	+58.918	11.4	3
42	19	6	22	0.8	−66.132	6	26	22.7	−29.621	11.8	3
43	19	7	33	17.1	−98.185	7	37	23.6	+25.076	11.7	2
44	19	7	55	44.1	−108.214	7	59	51.1	+42.648	11.7	3
45	19	16	15	57.6	−3.152	16	19	47.6	−33.499	10.8	3
46	19	17	4	44.4	−27.203	17	7	46.9	−1.368	10.4	3
47	19	17	21	52.9	−35.358	17	25	15.9	+9.825	10.4	3
48	20	6	2	9.3	+68.536	5	58	16.9	−96.094	11.0	2
49	20	8	1	28.6	+11.764	8	4	17.9	−2.257	11.3	4
50	20	8	11	47.1	+6.658	8	15	1.3	+5.712	11.3	4
51	20	8	29	7.9	−1.778	8	31	49.3	+18.171	11.3	4
52	20	16	23	43.0	+34.553	16	30	2.3	−23.020	11.8	3
53	20	17	6	59.4	+11.315	17	11	10.8	+3.021	11.7	3
54	21	6	38	35.3	+4.683	6	41	41.5	+20.110	11.5	2
55	21	6	52	16.7	−1.569	6	55	17.0	+30.134	11.5	2
56	21	8	7	3.7	−40.159	8	10	36.7	+84.157	11.3	2
57	22	6	18	49.9	+52.528	6	22	9.4	+59.553	11.4	3
58	22	7	19	49.9	+20.048	7	23	35.4	+102.798	11.4	2
59	24	6	29	43.6	−12.361	6	33	15.3	−35.647	11.2	3
60	October 24	6	37	36.8	−43.036	6	40	47.6	+48.970	11.1	3

NO.	DATE.		WASHINGTON MEAN TIME.			y_0	WASHINGTON MEAN TIME.			x_0	COMP. STAR.	WT.
	1900		h	m	s	"	h	m	s	"	m	
61	October	24	8	32	48.0	— 85.494	8	36	44.0	+ 43.768	11.4	3
62		24	16	37	42.0	— 29.760	16	42	43.0	— 59.812	11.3	3
63		24	17	19	5.3	— 54.344	17	25	21.0	— 37.994	11.4	2
64		26	8	39	2.7	+ 20.439	8	42	15.5	— 51.521	11.0	3
65		27	6	28	22.7	+ 64.588	6	31	33.7	+ 72.486	11.4	2
66		27	6	35	17.6	— 43.931	6	38	16.7	+ 36.491	12.0	2
67		27	7	59	16.7	+ 4.763	8	3	14.9	+123.021	11.3	2
68		29	6	25	5.3	— 35.080	6	28	28.7	+ 29.919	11.6	3
69		29	7	13	34.9	— 68.992	7	16	57.3	+ 52.943	11.6	3
70		29	7	32	30.1	+ 66.702	7	36	37.2	— 21.583	12.0	3
71		29	16	14	19.7	+ 54.783	16	18	27.0	— 27.471	10.5	3
72		29	17	1	23.4	+ 21.776	17	4	42.7	— 10.840	10.4	3
73		29	17	16	48.4	+ 11.425	17	19	42.4	— 5.478	10.4	3
74		30	7	21	14.2	+ 70.380	7	26	1.4	—189.599	10.0	2
75		30	7	30	40.5	— 18.209	7	33	51.5	+ 16.802	11.2	3
76		30	8	10	47.6	+ 34.384	8	15	20.1	—167.884	10.0	2
77	November	4	6	33	12.7	—106.987	6	36	50.2	— 30.525	10.5	1
78		4	7	24	53.2	—146.416	7	29	48.9	— 17.112	10.5	1
79		4	7	55	12.9	—170.631	8	0	8.2	— 9.886	10.5	1
80		5	5	44	24.7	—193.928	5	49	22.3	+137.733	10.5	2
81		5	6	1	2.5	— 8.300	5	55	29.3	+138.801	11.4	2
82		5	7	48	14.7	— 92.120	7	52	36.0	+162.965	11.2	2
83		5	16	24	54.0	— 23.414	16	28	35.5	+ 75.565	11.0	3
84		5	16	34	58.3	— 47.203	16	31	44.5	— 29.619	11.0	3
85		5	17	12	20.0	+ 67.084	17	16	17.0	+131.472	10.5	3
86		6	5	52	8.6	— 42.612	5	55	3.4	+ 24.722	11.2	3
87		6	7	33	24.6	—122.091	7	37	8.4	+ 42.732	11.3	3
88		6	16	24	3.4	— 36.237	16	27	31.4	+ 27.266	11.4	3
89		6	17	3	39.2	— 66.484	17	7	5.9	+ 28.737	11.6	3
90		7	5	39	34.6	—147.395	5	43	45.9	— 36.428	10.0	3
91		7	8	0	17.4	+105.660	8	4	41.6	+163.519	....	3
92		9	6	7	43.8	— 16.615	6	10	42.4	+ 49.613	11.0	3
93		9	6	17	45.1	— 13.367	6	22	24.8	+196.278	9.5	2
94		9	7	29	46.6	— 70.620	7	34	17.4	+199.454	9.6	2
95		9	16	58	14.7	+ 52.247	17	1	59.5	—121.236	7.8	2
96		10	5	49	22.6	+ 37.106	5	53	7.0	—140.819	10.8	3
97		10	5	59	56.3	+ 31.549	6	2	58.6	+ 74.972	11.4	3
98		10	7	52	1.0	— 58.968	7	55	38.3	—140.692	10.6	3
99		10	8	2	35.8	+ 41.464	7	59	6.6	+ 37.719	11.3	3
100		12	5	47	12.6	— 47.724	5	50	53.1	— 72.017	11.5	3
101		12	6	5	46.9	— 13.126	6	1	7.1	+180.879	10.8	3
102		12	7	54	47.0	— 98.916	7	59	15.0	+170.501	10.3	3
103		12	16	40	47.1	— 64.450	16	44	57.8	+106.777	11.4	2
104		12	16	52	50.1	+ 67.316	16	57	27.5	— 59.452	10.5	2
105		13	5	33	23.1	—108.276	5	37	24.7	+ 5.321	11.2	3
106		13	5	40	57.9	+ 23.992	5	44	16.3	— 32.834	11.8	3
107		13	5	52	48.7	+ 14.560	5	55	53.0	— 33.694	11.8	3
108		13	7	12	46.5	— 45.861	7	16	41.3	— 44.698	11.8	3
109		13	16	24	33.1	+107.695	16	29	11.0	+ 81.173	9.6	2
110		14	5	47	18.9	+ 50.784	5	51	36.1	—152.675	10.8	3
111		14	5	59	14.9	+ 15.577	6	2	46.9	— 39.511	11.9	3
112		14	8	9	41.9	— 15.241	8	13	42.5	+115.287	11.5	3
113		15	5	34	36.1	+101.383	5	38	2.3	— 48.052	11.0	1
114		15	5	46	38.8	+138.432	5	50	20.8	+ 89.108	10.3	1
115		15	7	36	47.5	+ 11.016	7	40	8.0	— 74.538	11.0	2
116		15	7	43	41.2	+ 51.260	7	46	58.3	+ 63.955	10.3	2
117		15	16	18	12.5	— 49.768	16	22	43.6	+ 9.345	11.5	3
118		16	5	31	58.2	— 30.618	5	34	38.2	— 17.054	11.5	3
119		16	5	37	53.5	+ 8.543	5	40	24.0	+ 6.584	11.8	3
120		16	7	56	57.9	+ 48.875	8	0	46.4	+ 22.114	10.1	3
121		17	5	28	53.6	— 55.779	5	32	49.6	+ 78.138	11.2	3
122		17	7	24	34.8	+ 92.779	7	27	56.8	— 4.391	10.2	3
123		17	7	50	24.3	+ 74.137	7	54	0.4	— 12.605	10.2	3
124		21	5	46	23.9	— 67.378	5	50	14.8	+ 22.097	10.5	2
125		21	5	59	34.2	+ 79.286	6	3	38.4	+ 3.963	10.9	2
126		21	7	57	8.4	+ 7.163	8	0	53.4	— 51.703	10.9	2
127		22	5	39	1.7	+ 7.690	5	41	33.5	— 2.834	8.5	4
128		22	5	44	39.5	+ 4.909	5	47	51.5	— 5.746	8.5	4
129		22	7	13	28.6	— 46.479	7	16	56.3	— 50.570	8.2	3
130	November	22	7	55	4.0	— 71.236	7	58	39.6	— 71.941	8.2	3

NO.	DATE.	WASHINGTON MEAN TIME.			y_0	WASHINGTON MEAN TIME.			x_0	COMP. STAR.	WT.
	1900	h	m	s	″	h	m	s	″	m	
131	November 27	5	45	14.8	+ 35.133	5	47	59.8	+ 4.500	11.0	3
132	27	5	57	14.2	+ 30.598	5	59	56.3	− 3.604	11.0	3
133	27	7	40	6.1	− 11.437	7	44	0.2	− 73.092	10.9	3
134	27	7	48	15.1	+ 19.869	7	52	6.1	+ 68.307	11.0	2
135	27	15	53	53.2	+ 59.513	..	..	....	......	10.9	1
136	30	5	31	38.8	− 19.169	5	35	0.1	+ 73.634	11.2	2
137	30	5	39	6.2	+112.939	5	42	41.2	+ 42.403	9.4	3
138	30	7	53	40.3	− 59.387	7	57	55.0	− 34.293	11.2	2
139	30	8	4	39.9	+ 71.286	8	1	18.9	− 62.681	9.6	3
140	30	14	57	12.8	− 56.759	15	1	35.9	−176.794	11.0	2
141	30	15	14	39.8	− 59.835	15	10	19.7	−184.793	11.0	2
142	December 1	5	26	52.1	+132.307	5	30	9.7	+ 98.594	9.4	3
143	1	5	37	46.7	+129.705	5	34	27.3	+ 95.271	9.4	3
144	1	6	56	49.9	+110.749	7	0	33.5	+ 29.092	9.4	3
145	1	7	13	9.0	+106.974	7	9	27.8	+ 22.018	9.4	3
146	1	14	58	20.2	+ 69.490	15	3	19.7	− 31.793	10.5	3
147	1	15	11	21.6	− 93.026	15	7	14.8	+ 85.641	10.0	3
148	2	5	19	58.0	− 13.128	5	22	58.5	− 59.825	11.2	3
149	2	5	33	19.5	+ 11.680	5	36	36.2	+ 63.434	11.4	3
150	2	5	43	37.0	− 17.517	5	40	6.9	− 73.107	11.2	3
151	2	15	17	8.6	−169.734	15	12	59.9	− 13.117	11.0	3
152	8	6	32	46.4	− 4.516	6	36	0.1	− 86.011	11.2	3
153	8	6	44	11.8	+ 60.354	6	40	37.4	+104.712	10.2	3
154	8	7	22	11.3	+ 62.887	7	25	28.8	+ 63.227	10.2	3
155	8	14	19	56.2	− 96.777	14	16	41.8	− 47.395	10.0	2
156	10	5	39	31.4	− 37.625	5	36	13.2	− 73.654	11.0	3
157	10	5	43	17.6	− 37.562	5	46	42.1	− 83.140	11.0	3
158	10	5	53	37.2	− 30.855	5	50	2.8	+112.200	11.0	3
159	10	6	59	39.5	− 20.090	6	56	26.6	+ 49.462	11.0	3
160	10	14	4	49.0	− 71.588	14	1	0.8	− 43.356	11.2	3
161	10	14	9	26.9	− 70.502	14	13	31.0	− 56.778	11.2	3
162	11	5	21	27.6	+ 2.467	5	18	20.6	+ 26.025	11.1	3
163	11	5	24	47.8	+ 3.067	5	28	5.8	+ 16.692	11.1	3
164	11	5	36	27.8	+ 5.878	5	33	38.1	+ 11.403	11.1	3
165	11	7	13	54.8	+ 26.882	7	17	34.3	− 88.170	11.0	3
166	11	14	48	48.8	−109.827	14	45	6.8	−127.438	11.0	2
167	11	14	53	54.9	− 25.196	14	56	25.2	+ 21.907	12.4	3
168	12	5	11	26.5	−110.717	5	8	1.7	− 37.659	8.0	3
169	12	5	16	32.8	−108.581	5	19	49.6	− 48.688	8.0	3
170	12	7	6	41.1	− 86.026	7	3	46.4	+ 21.165	10.0	3
171	12	7	11	47.3	− 84.621	7	14	55.4	+ 10.048	10.0	3
172	13	5	28	49.0	+ 98.920	5	25	33.6	+ 31.594	10.8	3
173	13	5	33	41.9	− 54.504	5	37	0.9	− 40.568	11.8	3
174	13	5	45	14.0	+103.755	5	41	59.8	+ 15.423	10.8	3
175	13	7	25	34.2	− 19.319	7	22	44.2	− 22.889	11.8	3
176	13	7	23	28.9	+ 12.728	7	31	15.9	+ 21.222	11.8	3
177	13	13	46	27.5	− 0.969	13	43	0.9	+ 5.618	11.4	4
178	13	13	52	0.8	− 2.924	13	56	24.3	+ 93.494	11.2	3
179	13	14	6	26.4	+ 8.765	14	3	14.6	− 16.743	11.4	3
180	14	5	17	2.2	+180.204	5	11	42.7	+159.168	9.1	2
181	14	5	25	19.1	− 60.392	5	29	7.1	− 75.582	11.4	3
182	14	7	11	2.5	− 23.044	7	5	47.7	−170.466	11.4	2
183	14	7	14	48.2	− 58.058	7	18	26.6	+103.770	10.5	3
184	14	13	50	43.3	+ 1.944	13	47	16.3	+119.999	9.5	3
185	14	13	56	53.7	− 1.471	14	1	0.5	+135.321	9.5	3
186	15	5	4	20.9	−124.560	5	1	3.9	+ 9.785	7.0	3
187	15	5	14	43.1	−119.847	5	17	47.8	− 6.834	7.0	3
188	15	7	21	9.4	− 69.268	7	17	29.8	−126.474	7.0	3
189	15	7	25	23.0	+ 71.857	7	28	47.4	− 72.470	11.3	3
190	16	5	18	40.6	+267.333	5	12	57.1	+ 2.944	10.5	2
191	16	5	24	5.8	+ 38.939	5	27	24.3	− 67.182	11.9	3
192	16	7	25	5.4	+ 56.840	7	21	17.9	− 5.136	12.0	3
193	16	7	35	9.5	−139.520	7	39	18.9	− 10.864	11.0	3
194	16	14	29	48.2	+ 7.424	14	27	36.8	+ 7.208	7.5	4
195	18	5	37	49.5	+162.826	5	33	5.3	+ 29.136	8.8	3
196	18	5	44	37.6	− 37.935	5	48	19.9	− 28.866	10.8	3
197	18	5	54	59.4	+ 4.029	5	52	17.1	+ 66.318	11.4	3
198	18	7	53	27.1	+ 67.817	7	56	48.8	− 62.822	11.5	3
199	19	5	17	43.5	− 13.171	5	13	12.0	+ 67.732	11.5	3
200	December 19	5	25	34.5	− 8.642	5	28	46.1	+ 51.975	11.5	3

NO.	DATE.		WASHINGTON MEAN TIME.			y_0	WASHINGTON MEAN TIME.			x_0	COMP. STAR.	WT.
	1900		h	m	s	"	h	m	s	"	m	
201	December	19	7	7	31.2	+ 51.308	7	4	1.8	− 46.162	11.4	3
202		19	7	13	28.6	+ 54.586	7	16	31.5	− 59.257	11.4	3
203		20	5	31	21.1	− 58.732	5	25	23.1	−218.074	11.4	2
204		20	5	39	35.1	+127.446	5	44	46.1	+ 93.740	11.9	3
205		20	6	36	58.2	+163.606	6	32	59.5	+ 44.044	11.9	3
206		21	5	34	41.8	−170.899	5	30	24.1	− 23.245	11.5	2
207		21	5	42	10.1	−139.837	5	46	34.0	+118.374	11.6	2
208		21	7	18	17.8	− 74.406	7	14	37.5	+ 26.963	11.8	3
209		21	13	41	50.4	+134.653	13	50	11.8	+ 39.999	11.7	3
210		24	5	14	58.6	− 0.685	5	13	2.1	+ 1.421	11.0	4
211		24	5	19	12.9	+ 2.248	5	21	35.6	− 7.525	11.2	4
212		29	5	35	2.8	+153.642	5	30	23.5	+ 53.713	11.3	2
213		29	5	40	58.3	− 76.701	5	45	0.2	+156.760	11.6	2
214		29	7	9	28.9	+ 14.138	7	5	16.4	+ 71.615	11.6	3
215		29	7	14	3.6	− 78.451	7	17	53.6	− 47.649	11.8	3
216		29	13	38	33.3	− 27.960	13	33	49.4	+321.941	9.4	2
	1901											
217	January	2	7	11	7.5	− 30.084	7	7	2.3	−106.116	11.4	2
218		3	5	35	1.7	− 64.782	5	26	46.7	−277.594	9.4	2
219		3	5	41	49.5	− 51.109	5	46	49.4	−128.180	11.7	3
220		3	5	54	26.6	− 23.409	5	51	20.0	+ 91.893	11.5	3
221		3	7	15	37.4	+ 76.388	7	20	33.1	− 2.805	11.4	2
222		4	5	30	26.9	− 31.834	5	27	0.1	+ 66.062	9.2	3
223		4	5	33	53.7	− 27.588	5	36	42.8	+ 55.746	9.2	3
224		4	6	29	31.3	+ 43.243	6	26	59.3	+ 2.697	9.2	3
225		4	6	32	56.1	+ 47.460	6	35	33.6	− 6.608	9.2	3
226		5	5	30	30.2	− 84.401	5	26	54.5	+ 34.193	10.5	3
227		5	5	35	31.7	− 77.730	5	38	40.6	+ 21.892	10.5	3
228		5	6	41	37.4	+ 8.433	6	38	55.1	− 42.231	10.4	3
229		5	6	44	25.7	+ 21.159	6	47	14.7	+ 50.215	10.4	3
230		5	12	45	13.3	+ 37.085	12	40	28.8	−123.769	9.4	3
231		5	12	50	25.9	+ 44.451	12	54	0.2	−138.608	9.4	3
232		8	6	21	58.8	+ 56.887	6	18	13.3	− 70.104	10.5	3
233		8	6	26	39.2	+ 63.349	6	29	48.4	− 81.608	10.5	3
234		9	6	1	30.2	+ 71.718	5	58	13.6	− 22.666	10.9	3
235		9	6	5	43.5	+ 77.648	6	8	27.2	− 34.562	10.9	3
236		13	5	59	24.7	+108.804	5	55	21.7	− 4.658	11.9	3
237		13	6	4	14.4	+116.023	6	7	22.7	− 18.024	11.9	2
238		13	12	11	27.4	− 65.884	12	7	37.7	+ 4.510	11.2	3
239		13	12	16	36.6	− 57.032	12	20	22.2	− 9.763	11.2	3
240		15	6	23	55.3	− 86.266	6	21	8.0	− 87.311	11.4	3
241		15	6	28	56.3	− 77.946	6	31	26.3	− 99.024	11.4	3
242		16	5	55	40.4	−155.535	5	51	43.9	+ 67.298	11.4	3
243		16	6	46	32.9	− 71.693	6	53	16.1	+ 4.695	11.4	3
244		19	6	18	12.4	+146.479	6	14	10.2	− 90.015	9.6	2
245		19	6	24	11.4	+156.798	6	28	17.3	−104.817	9.6	2
246		20	6	17	39.3	+ 47.902	6	13	52.8	−134.093	9.8	2
247		20	6	22	18.2	+ 55.530	6	25	59.7	−147.076	9.8	2
248		22	6	42	7.3	+ 50.695	6	39	16.3	+ 55.781	11.8	3
249		22	6	47	31.1	+ 59.909	6	50	55.0	+ 44.144	11.8	3
250	January	29	6	53	4.0	−120.140	6	49	9.1	−174.732	10.5	3

OBSERVATIONS OF EROS

WITH THE

TWENTY-SIX INCH EQUATORIAL.

BY

GEORGE K. LAWTON.

DATE.	WASHINGTON MEAN TIME.	STAR.	NO. COMP.	PLANET—STAR.		PLANET'S APPARENT		LOG $p\Delta$	
				$\Delta\alpha$	$\Delta\delta$	α	δ	for α	for δ
1900	h m s			m s	′ ″	h m s	° ′ ″		
Sept. 11	16 1 11	1	15, 5	+0 36.88	+0 6.5	2 32 51.86	+37 31 28.1	9.110	9.465
11	16 25 4	1	25, 5	+0 37.76	+0 28.2	2 32 52.74	37 31 49.8	9.271	9.612
12	12 38 2	2	30, 6	−1 19.26	+2 25.7	2 33 40.00	37 50 52.4	9.544_n	9.997
16	12 45 56	3	30, –	+0 44.53	. ....	2 37 3.86	.. ..	9.498_n	.....
18	15 10 1	4	30, 6	−1 6.32	−1 37.7	2 38 36.86	40 10 1.2	8.757	9.301_n
19	12 43 5	5	29, 6	−0 19.89	+1 0.2	2 39 14.28	40 30 33.7	9.484_n	9.536
19	12 58 47	5	28, 6	0 19.54	+1 15.1	2 39 14.63	40 30 48.6	9.429_n	9.293
21	17 1 8	6	30, 6	−0 56.92	−6 40.6	2 40 34.81	41 20 25.2	9.330	9.648
23	13 49 47	7	35, 7	−0 42.13	+3 9.4	2 41 35.88	+42 3 9.9	9.048_n	9.637_n
24	12 23 17	8	27, 6	−1 30.03	+1 24.3	2 42 3.10	+42 24 39.9	9.507_n	9.032
26	12 51 52	9	31, 8	+1 3.18	−1 42.3	2 42 52.34	43 10 44.8	9.378_n	9.516_n
Oct. 5	15 47 54	10	28, 8	+1 57.36	+1 40.3	2 43 54.10	46 34 40.7	9.526	9.715_n
6	12 43 42	11	35, 7	+1 11.15	+5 16.3	2 43 45.46	46 53 34.3	9.234_n	0.033_n
9	12 36 43	12	32, 8	−1 8.15	+4 31.2	2 42 51.38	47 57 18.4	9.193_n	0.105_n
14	16 47 47	13	30, 6	−1 23.95	+1 41.2	2 39 47.73	49 41 29.7	9.765	9.770
15	13 57 33	14	30, 6	+2 13.21	+0 34.3	2 39 5.73	49 58 23.7	9.232	0.193_n
16	13 48 4	15	8, 8	+0 1.51	−1 31.1	2 38 12.99	50 16 57.9	9.200	0.212_n
19	13 58 51	16	40, 8	+1 17.19	−1 29.4	2 35 6.64	51 10 21.9	9.378	0.204_n
20	13 52 48	17	39, 8	−1 49.90	−1 47.9	2 33 55.67	+51 27 0.0	9.375	0.217_n

COMPARISON STARS.

STAR.	α 1900.0	RED. TO APP. PLACE.	δ 1900.0	RED. TO APP. PLACE.	AUTHORITY.
	h m s	s	° ′ ″	″	
1	2 32 10.06	+4.92	+37 31 9.9	+11.7	Publications U. S. Naval Observatory, Volume III, Part II.
2	2 34 54.30	4.96	37 48 15.2	11.5	" " "
3	2 36 14.20	5.13	39 21 55.2	11.7	" " "
4	2 39 37.95	5.23	40 11 27.4	11.5	" " "
5	2 39 28.90	5.27	40 29 21.9	11.6	" " "
6	2 41 26.35	5.38	41 26 54.2	11.6	" " "
7	2 42 12.56	5.45	41 59 48.8	11.7	" " "
8	2 43 27.63	5.50	42 23 3.9	11.7	" " "
9	2 41 43.56	+5.60	+43 12 15.0	+12.1	" " "
10	2 41 50.69	+6.05	+46 32 47.1	+13.3	" " "
11	2 42 28.22	6.09	46 48 4.7	13.3	" " "
12	2 43 53.29	6.24	47 52 33.6	13.6	" " "
13	2 41 5.18	6.50	49 39 33.7	14.8	" " "
14	2 36 45.99	6.53	49 57 33.8	15.6	" " "
15	2 38 4.90	6.58	50 18 13.4	15.6	" " "
16	2 33 42.74	6.71	51 11 34.5	16.8	" " "
17	2 35 38.81	+6.76	+51 28 31.2	+16.7	" " "

PART II.

OBSERVATIONS
OF
EROS AND REFERENCE STARS
WITH THE
NINE-INCH TRANSIT CIRCLE.

1900-1901.

BY

THEO I. KING,

ASSISTED BY

E. A. BOEGER, W. M. BROWN, AND J. C. HAMMOND.

INTRODUCTION.

By THEO I. KING.

The primary list of "Étoiles de repère pour les observations d'Éros," issued as Circular No. 4 of the Conférence Astrophotographique Internationale, of July, 1900, was received at the United States Naval Observatory September 12, 1900. The Astronomical Director detailed Mr. THEO I. KING, Assistant Astronomer, to observe the stars of this list with the 9-inch transit circle. All transits and bisections were taken by Mr. KING, on fifty-six nights, the asteroid itself being included thirty-three times. Observations extended from September 16, 1900, to January 29, 1901. Settings were made and microscopes read by an assistant, three different computers being assigned to this duty during the four and a half months. Mr. WM. M. BROWN served on eight nights, Mr. E. A. BOEGER on eighteen nights, and Mr. JOHN C. HAMMOND on thirty nights. The assistant also read the barometer and thermometers, and made the record for some of the zero stars, but on nearly every night the greater part of the recording was done by Mr. ROY Y. FERNER.

For a description of the instruments employed consult Publications of the United States Naval Observatory, Second Series, Volume I, pages vii et seq. of the Introduction, and also volumes of the previous series. The reticule comprises one movable and twenty-three fixed vertical threads; also six movable and two fixed horizontal threads. The last-named pair are 8″.6 apart, and mark the middle of the field. The intervals of the fixed vertical threads for the period in question are given in Table A. It is to be remembered that the spider lines are reversed by change of clamp, the letters and numerals being applied to the threads in the order in which they are reached by a star at upper culmination. Observations through November 12 were made with the clamp west; after that date with the clamp east. The intervals between the movable horizontal threads attached to the micrometer are shown by Table F, distances being reckoned from an imaginary line midway between the pair of spider lines known as the double threads, which are about 7″.5 apart. The table is designed to furnish the correction for inclination of the zenith distance threads and for distance from the mean thread at which bisections are made.

There is an average difference between the mean of the observations in the two positions of the telescope amounting to

$$+0^{s}.094 \text{ in } \alpha. \quad \text{Clamp East} - \text{Clamp West},$$

and

$$-0''.32 \text{ in } \delta. \quad \text{Clamp East} - \text{Clamp West}.$$

It is suspected that this difference may be attributed in whole or in large part to the unsymmetrical illumination of the field, though the unequal wearing of the pivots might account for some of it. The reduced positions would necessarily be affected by one-half the error thus occasioned. The influence of the unsymmetrical illumination was clearly shown by grouping according to the magnitude of the star the differences between the reduced right ascensions in the two positions of the axis, and then platting the form of the correction from the averages of the different magnitudes. As a result of this discussion the corrections given in Table J have been applied to the collected positions.

The observer's plan contemplated four observations of each star, two with the clamp east and two with the clamp west. There were also added to the list six stars, four of them having been used by Mr. GEORGE K. LAWTON in observing the asteroid with the 26-inch equatorial at this Observatory. The list was divided into twelve sets, but, owing to the unusually large percentage of bad nights, and to the loss of several good ones from unforseen causes, it became necessary during the latter half of the work to condense the earlier stars into fewer nights in order to avert the danger of losing some of them in the twilight. An element of haste was thus introduced which at times called for great rapidity of manipulation, and also necessitated the continuance of work on very unfavorable nights. These unfortunate circumstances appear to have slightly affected the accuracy of the observations, as may be seen from the probable errors of an individual observation, which are $0^s.029 \sec\delta$ in right ascension, and $0''.36$ in declination.

For fundamental stars the scheme adopted was to select two groups of four stars each from NEWCOMB'S Catalogue of Fundamental Stars, Volume VIII, Part II, Astronomical Papers of the American Ephemeris, preference being given to those stars the apparent places of which are contained in the American Ephemeris or Berliner Jahrbuch. One group preceded the list stars in right ascension, the other followed; the average declination of each group was not materially different from that of the list stars. These groups were sometimes modified on account of clouds, and for other reasons; moreover, on nights when Eros was observed, one or more additional zero stars were taken as near to the right ascension of the planetoid as the list stars would allow. Observations of 6 Ursæ Minoris, S. P., and of α Ursæ Minoris were made on thirty-five nights, and two stars of small declination, to be used in reducing them and as a check upon the clock rate, were added near the beginning and also near the end of every night's work. As the position of the azimuth mark deduced from the above will be included in the next volume of the Publications of the United States Naval Observatory devoted to the Sun, Moon, Planets, and Miscellaneous Stars, the record of this portion of the observations is not reproduced here. The number of observations of each zero star is shown in Table K. Not including the circumpolars and south stars, there were 434 zero star observations, 1,361 observations of list stars, and 33 observations of Eros. The list stars extended from $1^h\ 24^m\ 0^s$ to $2^h\ 49^m\ 29^s$ in right ascension, and from $+37^\circ\ 23'\ 5''$ to $+55^\circ\ 22'\ 45''$ in declination

The method of observing the zero stars and Eros comprised transits over the eleven fixed vertical threads in the middle of the reticule, and four micrometer measures with the movable horizontal threads of the distance from the imaginary reference line when the object successively reached I, II, VI, and VII. Transits of the list stars were usually obtained over nine of the fixed vertical threads, with two measures by the zenith distance micrometer. These transits were taken preferably over the middle threads with bisections at III and V, but a considerable number of observations were secured having bisections at I and III (or II), with transits over the remainder of the first eleven threads; a few were made with bisections at V and VII, and with transits over the remainder of the last eleven wires. The bisections were registered by a Rogers attachment, having four levers; for list stars only two levers were used, except in very close sequences, when either four levers were employed or else the head was read immediately after bisecting. The two levers farthest from the plate have lost motion which may amount to as much as 0.005 of a revolution, or $0''.1$, while the other two levers have about half as much. As the observer was careful that the bisections should always be made when drawing the threads toward the micrometer head, this error is probably eliminated. Another possible source of error arose from the absence of the disk designed to prevent the projecting lever ends from being displaced by the fingers of the observer; in cold weather especially, when the fingers were numb, or partially gloved, one or more levers could be moved without being noticed. A number of readings were suspected and rejected for this reason, in addition to those cases in which the observer's sense of touch apprised him that the lever had been disturbed.

All stars, as well as Eros, were taken with the observer's head south, even when the object was south of the zenith. This statement of course does not include the four stars of small declination which were included in each night's work, but which are not reduced in this volume.

The collimation constant was determined precisely as described in the volumes before referred to. The level constant was deduced from readings with the hanging spirit level. The azimuth constant was derived by measuring the micrometer distance of the image of the azimuth mark from the middle thread of the reticule, and combining it with the adopted position of the mark, according to the following formulæ:

Let $Z =$ zenith distance north of mark $= 93° 38'$;
$A_m =$ azimuth of mark;
$D_m =$ micrometer distance of mark from middle thread in reticule, positive when mark appears west;
$S =$ micrometer distance of vertical thread of south collimator east of middle thread in reticule;
$N =$ micrometer distance of intersection of threads of north collimator east of middle thread in reticule;
$M =$ value in seconds of time of one revolution of right ascension micrometer screw;
$b =$ level constant of instrument;
$a =$ azimuth constant of instrument.

Then $A_m \sin Z = -D_m M + a \sin Z - b \cos Z - \frac{S+N}{2} M$,

$A_m = a - 0.641\ (2D_m + S + N - 0.1b)$.
Let $K = 0.641\ (2D_m + S + N - 0.1b)$.
Therefore $A_m = a - K$,
And $a = A_m + K$.

The position of the mark is regarded as constant for limited periods, and is ascertained by observations of circumpolars. Table B exhibits the positions of the mark deduced from each observation, and also the adopted values for the different periods. The constants of collimation, level, and azimuth are collated in Table C for the whole time.

The reflection of the middle wire over the mercury was observed every night; the value of the level deduced therefrom served as a check upon the constant derived from the hanging spirit level. The correction to the zenith point from these nadir observations was not employed in the reductions, the list stars being referred to the equator point computed from the zero stars.

The directions to the assistant required him to set the telescope with a downward tangential motion on a two-minute division of the circle, and to complete the setting with the tangent screw so that microscope I, clamp east, or microscope V, clamp west, would read 10″.0. This course insured uniformity of setting, and obviated the necessity of applying any correction for error of runs. The division errors of the circle employed were discussed in an Appendix to the volume of the Washington Observations for 1865, but no correction has been applied in these reductions. As the stars observed are within 20° of the zenith, the correction for flexure is negligible; see pages XVII–XVIII of the Introduction to the Publications of the United States Naval Observatory, Second Series, Volume I.

The tables used in reducing the observations are reproduced on the pages immediately following. Pages B 3 to B 49 contain the observations and reductions in chronological order. The first column is for convenience of reference. The second column gives the name of the star. The third specifies the number of threads used in deducing the *Mean Thread* found in column 4. A very few threads have been rejected which, for declinations under 45°, showed a difference exceeding $0^s.1$ from any other thread, or $0^s.2$ from the mean of the others; and for declinations over 45°, exceeding $0^s.12$ from any other thread, or $0^s.25$ from the mean of the others. The fifth column contains the value of the correction $Aa+Bb+Cc$ in MAYER'S formula for the reduction of transit observations. In column 6, opposite each fundamental star, is given in heavy-faced figures its clock correction, and opposite each list star in the usual font the interpolated clock correction as computed from Table D. Combination of the quantities of columns 4, 5, and 6 produces the *Apparent Right Ascension*, printed in column 7. Column 8 gives the quantity obtained by means of the BESSELIAN star-numbers to reduce the previous column to the mean place for the epoch 1900.0. For the declinations, column 9 records the setting of the circle and the mean of the four microscope readings. The tenth and eleventh columns contain the readings of the micrometer head for each bisection; column 12 indicates the zenith distance thread employed whenever the bisections were not made between the double threads. The thirteenth column gives the refraction, computed by means of the BESSEL-COFFIN tables, edited by Professor J. R. EASTMAN; the data for this computation are given on the lower left-hand corner of each page. The *Apparent Declination* of column 14 is obtained by applying to the quantity of column 9: (1) the micrometer readings transformed into arc, using Table E; (2) the reduction to meridian by Table G; (3) the inclination and thread for unsymmetrical bisections from Table F; (4) the refraction of column 13; and, (5) the equator point, given at the lower right-hand corner of the page, as well as in Table H. The equator point was regarded as constant during each date for all but sixteen nights, on which it was interpolated, the time printed being the mean of the sidereal clock times of the transits of the zero stars. The fifteenth column gives the quantity obtained by means of the BESSELIAN star-numbers to reduce the quantity of the previous column to the mean place for the epoch 1900.0.

Parentheses inclose matter which has been supplied as not existing in the original record or is the result of change from the original record.

The observed positions, combined with the reductions to 1900.0 and the corrections of Table J, are collected for each star on pages B 53 to B 66. The means of the positions of each star for 1900.0, and the number of observations upon which they are based, are given on pages B 67 to B 69. The apparent positions of Eros are brought together on page B 69.

TABLE A.—*The Equatorial Thread Intervals.*

Designation.		Reduction to		
Cl. W.	Cl. E.	c_3.	Mean of b, c and d.	Log.
		s	s	
I	VII	37.0576	37.0900	1.569257
a_1	e_5	32.4622	32.4946	1.511811
a_2	e_4	30.5110	30.5434	1.484917
a_3	e_3	28.7214	28.7538	1.458695
a_4	e_2	26.9368	26.9692	1.430868
a_5 II	e_1 VI	24.6816	24.7140	1.392943
b_1 III	d_3 V	12.3570	12.3894	1.093050
b_2	d_2	9.6948	9.7272	0.987988
b_3	d_1	8.1947	8.2271	0.915247
c_1	c_5	4.1308	4.1632	0.61943
c_2	c_4	2.0581	2.0905	0.32025
c_3 IV	c_3 IV	0.0000	*0.0324	*8.5105
c_4	c_2	2.1510	2.1186	0.32605
c_5	c_1	4.1757	4.1433	0.61735
d_1	b_3	8.2692	8.2368	0.915759
d_2	b_2	9.8074	9.7750	0.990117
d_3 V	b_1 III	12.3888	12.3564	1.091892
e_1 VI	a_5 II	24.7149	24.6825	1.392389
e_2	a_4	26.8296	26.7972	1.428089
e_3	a_3	28.7388	28.7064	1.457979
e_4	a_2	30.6086	30.5762	1.485384
e_5	a_1	32.3637	32.3313	1.509623
VII	I	37.0787	37.0463	1.568745

* Has same sign as quantities above it.

TABLE B.—*The Azimuth of the North Meridian Mark.*

Date.	Azimuth Star.	*a*	*K*	A_m
1900	**CLAMP WEST.**	s	s	s
Sept. 16.5	6 Urs. Min., S. P.	+0.076	+0.900	−0.824
16.5	α Urs. Min......	−0.040	+0.900	−0.940
18.5	6 Urs. Min., S. P.	−0.159	+0.712	−0.871
18.5	α Urs. Min......	−0.074	+0.712	−0.786
19.5	6 Urs. Min., S. P.	−0.114	+0.725	−0.839
19.5	α Urs. Min......	−0.056	+0.725	−0.781
24.5	6 Urs. Min., S. P.	−0.232	+0.636	−0.868
24.5	α Urs. Min......	−0.131	+0.636	−0.767
26.5	6 Urs. Min., S. P.	−0.129	+0.763	−0.892
26.5	α Urs. Min......	−0.087	+0.763	−0.850
Oct. 6.5	6 Urs. Min., S. P.	−0.014	+0.829	−0.843
6.5	α Urs. Min......	−0.022	+0.829	−0.851
7.5	6 Urs. Min., S. P.	−0.048	+0.788	−0.836
7.5	α Urs. Min......	−0.010	+0.788	−0.798
9.5	6 Urs. Min., S. P.	−0.135	+0.774	−0.909
9.5	α Urs. Min......	−0.077	+0.774	−0.851
10.5	6 Urs. Min., S. P.	−0.182	+0.686	−0.868
10.5	α Urs. Min......	−0.110	+0.686	−0.796
11.5	6 Urs. Min., S. P.	−0.138	+0.772	−0.910
11.5	α Urs. Min......	−0.091	+0.772	−0.863
15.5	6 Urs. Min., S. P.	−0.159	+0.711	−0.870
15.5	α Urs. Min......	−0.114	+0.711	−0.825
16.5	6 Urs. Min., S. P.	−0.112	+0.719	−0.831
16.5	α Urs. Min......	−0.070	+0.719	−0.789
17.4	6 Urs. Min., S. P.	−0.113	+0.755	−0.868
19.4	6 Urs. Min., S. P.	−0.080	+0.706	−0.786
19.4	α Urs. Min......	−0.075	+0.706	−0.781
20.4	6 Urs. Min., S. P.	−0.026	+0.757	−0.783
20.4	α Urs. Min......	+0.026	+0.757	−0.731
	Adopted value	....	....	−0.835
21.4	6 Urs. Min., S. P.	−0.106	+0.769	−0.875
21.4	α Urs. Min......	−0.035	+0.769	−0.804
24.4	6 Urs. Min., S. P.	+0.037	+0.814	−0.777
24.4	α Urs. Min......	+0.030	+0.814	−0.784
26.4	6 Urs. Min., S. P.	−0.030	+0.762	−0.792
26.4	α Urs. Min......	+0.019	+0.762	−0.743
27.4	6 Urs. Min., S. P.	−0.038	+0.789	−0.827
27.4	α Urs. Min......	−0.026	+0.789	−0.815
29.4	6 Urs. Min., S. P.	0.008	+0.787	−0.795
29.4	α Urs. Min......	−0.026	+0.787	−0.813
30.4	6 Urs. Min., S. P.	−0.026	+0.777	−0.803
30.4	α Urs. Min......	−0.023	+0.777	−0.800
Nov. 5.4	6 Urs. Min., S. P.	−0.155	+0.768	−0.923
5.4	α Urs. Min......	−0.070	+0.768	−0.838
9.4	6 Urs. Min., S. P.	+0.084	+0.917	−0.833
9.4	α Urs. Min......	+0.080	+0.917	−0.837
1900	**CLAMP EAST.**	s	s	s
Nov. 19.3	6 Urs. Min., S. P.	+0.095	+1.026	−0.931
19.3	α Urs. Min......	+0.085	+1.026	−0.941
22.3	6 Urs. Min., S. P.	+0.081	+0.990	−0.909
22.3	α Urs. Min......	+0.066	+0.990	−0.924
27.3	6 Urs. Min., S. P.	+0.160	+1.101	−0.941
27.3	α Urs. Min......	+0.165	+1.101	−0.936
30.3	6 Urs. Min., S. P.	+0.289	+1.226	−0.937
30.3	α Urs. Min......	+0.271	+1.226	−0.955
Dec. 5.3	6 Urs. Min., S. P.	+0.294	+1.183	−0.889
5.3	α Urs. Min......	+0.267	+1.183	−0.916
6.3	6 Urs. Min., S. P.	+0.349	+1.174	−0.825
6.3	α Urs. Min......	+0.358	+1.174	−0.816
	Adopted value	....	....	−0.856
11.3	6 Urs. Min., S. P.	+0.420	+1.350	−0.930
11.3	α Urs. Min......	+0.478	+1.350	−0.872
13.3	6 Urs. Min., S. P.	+0.319	+1.252	−0.933
13.3	α Urs. Min......	+0.342	+1.252	−0.910
19.3	6 Urs. Min., S. P.	+0.448	+1.249	−0.801
19.3	α Urs. Min......	+0.400	+1.249	−0.849
21.3	6 Urs. Min., S. P.	+0.448	+1.329	−0.881
21.3	α Urs. Min......	+0.445	+1.329	−0.884
26.3	6 Urs. Min., S. P.	+0.388	+1.300	−0.912
26.3	α Urs. Min......	+0.435	+1.300	−0.865
27.3	6 Urs. Min., S. P.	+0.436	+1.396	−0.960
27.3	α Urs. Min......	+0.465	+1.396	−0.931
1901				
Jan. 3.2	6 Urs. Min., S. P.	+0.459	+1.324	−0.865
3.2	α Urs. Min......	+0.424	+1.324	−0.900
4.2	6 Urs. Min., S. P.	+0.531	+1.401	−0.870
4.2	α Urs. Min... ..	+0.472	+1.401	−0.929
9.2	6 Urs. Min., S. P.	+0.368	+1.326	−0.958
9.2	α Urs. Min......	+0.419	+1.326	−0.907
*12.7	α Urs. Min., S. P.	+0.544	+1.259	−0.715
*14.9	δ Urs. Min......	+0.443	+1.260	−0.817
†18.4	δ Urs. Min., S. P.	+0.465	+1.359	−0.894
†18.4	51 H. Cephei....	+0.401	+1.359	−0.958
*19.2	α Urs. Min......	+0.402	+1.337	−0.935
†28.3	δ Urs. Min., S. P.	+0.498	+1.424	−0.926
†28.3	51 H. Cephei....	+0.481	+1.424	−0.943
*29.4	δ Urs. Min., S. P.	+0.653	+1.430	−0.777
	Adopted value	....	....	−0.889

* Observer, Mr. E. A. BOEGER.

† Observer, Professor W. S. HARSHMAN.

TABLE C.—*The Adopted Values of the Collimation, Level and Azimuth Constants.*

Date.	Sidereal Hour.	*c.*	*b.*	*a.*	Date.	Sidereal Hour.	*c.*	*b.*	*a.*
1900	h h	s	s	s	1900	h h	s	s	s
Sept. 16	0. 6—3. 4	—0. 009	—0. 400	+0. 094	Dec. 5	0. 6—3. 6	+0. 104	—0. 162	+0. 344
18	0. 6—3. 4	—0. 022	—0. 278	—0. 085	6	0. 6—3. 6	+0. 133	—0. 136	(*)
19	0. 6—3. 4	—0. 047	—0. 223	—0. 086	6	0. 0 ...	.....	.....	+0. 318
23	0. 6—3. 4	+0. 002	—0. 282	—0. 110	6	2. 9 ...	.....	.....	+0. 415
24	0. 6—3. 4	—0. 002	—0. 321	—0. 154	10	0. 6—3. 6	+0. 098	—0. 063	+0. 420
25	0. 6—3. 4	—0. 004	—0. 357	—0. 095	11	0. 6—1. 6	+0. 100	—0. 070	+0. 461
26	0. 6—3. 4	+0. 005	—0. 354	—0. 078	12	0. 6—3. 1	+0. 112	—0. 022	+0. 455
27	0. 6—3. 4	+0. 002	—0. 382	—0. 102	13	0. 6—3. 1	+0. 101	(*)	+0. 384
Oct. 6	0. 6—3. 4	+0. 008	—0. 381	—0. 010	13	0. 2 ...	.....	—0. 183	.....
9	0. 6—3. 4	—0. 044	—0. 185	—0. 058	13	3. 2 ...	.....	—0. 073	.....
10	0. 6—3. 4	—0. 036	—0. 149	—0. 094	14	0. 6—3. 4	+0. 108	—0. 068	+0. 386
11	0. 6—3. 4	—0. 016	—0. 200	—0. 040	19	0. 6—3. 3	+0. 154	—0. 092	+0. 389
15	0. 6—3. 4	—0. 008	—0. 238	—0. 108	20	0. 6—3. 3	+0. 160	—0. 078	+0. 396
16	0. 6—3. 4	—0. 014	—0. 198	—0. 080	21	0. 6—3. 3	+0. 197	—0. 048	+0. 438
19	0. 6—3. 4	—0. 080	—0. 162	—0. 118	26	0. 6—3. 3	+0. 152	—0. 108	+0. 448
20	0. 6—3. 4	—0. 046	—0. 123	—0. 066	27	0. 6—3. 3	+0. 168	—0. 064	+0. 492
21	0. 6—3. 4	—0. 030	—0. 184	—0. 064	28	0. 6—3. 1	+0. 122	—0. 068	+0. 425
24	0. 6—3. 4	—0. 020	—0. 234	—0. 038	1901				
26	0. 6—3. 4	—0. 040	—0. 215	—0. 080	Jan. 1	0. 6—3. 1	+0. 150	—0. 015	+0. 394
27	0. 6—3. 4	—0. 036	—0. 255	—0. 044	2	1. 2—3. 3	+0. 151	—0. 037	+0. 463
29	0. 6—3. 4	—0. 041	—0. 140	—0. 054	3	0. 6—3. 1	+0. 142	—0. 026	(*)
Nov. 4	1. 9—3. 0	—0. 030	—0. 228	—0. 007	3	0. 1 ...	.....	.....	+0. 435
5	0. 6—3. 4	—0. 041	—0. 154	—0. 060	3	2. 4 ...	.....	.....	+0. 533
9	0. 6—3. 4	—0. 068	—0. 072	+0. 078	4	0. 6—3. 1	+0. 138	+0. 030	+0. 507
11	1. 7—3. 0	—0. 044	—0. 062	+0. 133	7	1. 9—3. 1	+0. 136	—0. 029	+0. 478
12	0. 6—3. 4	—0. 056	—0. 056	+0. 146	8	0. 6—3. 1	+0. 158	—0. 102	+0. 444
17	0. 8—2. 7	+0. 049	—0. 256	+0. 197	9	0. 6—2. 2	+0. 146	—0. 114	+0. 438
21	0. 6—2. 8	+0. 072	—0. 358	+0. 179	15	0. 6—3. 1	+0. 134	—0. 114	+0. 360
22	0. 6—3. 4	+0. 074	—0. 375	(*)	16	0. 8—3. 1	+0. 121	—0. 134	+0. 313
22	1. 1 ...	.....	.....	+0. 133	18	1. 2—3. 1	+0. 140	+0. 027	+0. 440
22	2. 9 ...	.....	.....	+0. 213	22	1. 7—3. 2	+0. 150	—0. 092	+0. 392
27	0. 6—3. 4	+0. 068	—0. 248	+0. 256	29	1. 7—3. 1	+0. 145	+0. 002	+0. 565
30	0. 6—3. 6	+0. 100	—0. 232	+0. 390					

*Interpolated; data on next two lines.

TABLE B.—*The Azimuth of the North Meridian Mark.*

Date.	Azimuth Star.	a	K	A_m
1900	CLAMP WEST.	s	s	s
Sept. 16.5	6 Urs. Min., S. P.	+0.076	+0.900	−0.824
16.5	α Urs. Min......	−0.040	+0.900	−0.940
18.5	6 Urs. Min., S. P.	−0.159	+0.712	−0.871
18.5	α Urs. Min......	−0.074	+0.712	−0.786
19.5	6 Urs. Min., S. P.	−0.114	+0.725	−0.839
19.5	α Urs. Min......	−0.056	+0.725	−0.781
24.5	6 Urs. Min., S. P.	−0.232	+0.636	−0.868
24.5	α Urs. Min......	−0.131	+0.636	−0.767
26.5	6 Urs. Min., S. P.	−0.129	+0.763	−0.892
26.5	α Urs. Min......	−0.087	+0.763	−0.850
Oct. 6.5	6 Urs. Min., S. P.	−0.014	+0.829	−0.843
6.5	α Urs. Min......	−0.022	+0.829	−0.851
7.5	6 Urs. Min., S. P.	−0.048	+0.788	−0.836
7.5	α Urs. Min.....	−0.010	+0.788	−0.798
9.5	6 Urs. Min., S. P.	−0.135	+0.774	−0.909
9.5	α Urs. Min......	−0.077	+0.774	−0.851
10.5	6 Urs. Min., S. P.	−0.182	+0.686	−0.868
10.5	α Urs. Min......	−0.110	+0.686	−0.796
11.5	6 Urs. Min., S. P.	−0.138	+0.772	−0.910
11.5	α Urs. Min......	−0.091	+0.772	−0.863
15.5	6 Urs. Min., S. P.	−0.159	+0.711	−0.870
15.5	α Urs. Min......	−0.114	+0.711	−0.825
16.5	6 Urs. Min., S. P.	−0.112	+0.719	−0.831
16.5	α Urs. Min......	−0.070	+0.719	−0.789
17.4	6 Urs. Min., S. P.	−0.113	+0.755	−0.868
19.4	6 Urs. Min., S. P.	−0.080	+0.706	−0.786
19.4	α Urs. Min......	−0.075	+0.706	−0.781
20.4	6 Urs. Min., S. P.	−0.026	+0.757	−0.783
20.4	α Urs. Min......	+0.026	+0.757	−0.731
	Adopted value	....	....	−0.835
21.4	6 Urs. Min., S. P.	−0.106	+0.769	−0.875
21.4	α Urs. Min......	−0.035	+0.769	−0.804
24.4	6 Urs. Min., S. P.	+0.037	+0.814	−0.777
24.4	α Urs. Min......	+0.030	+0.814	−0.784
26.4	6 Urs. Min., S. P.	−0.030	+0.762	−0.792
26.4	α Urs. Min......	+0.019	+0.762	−0.743
27.4	6 Urs. Min., S. P.	−0.038	+0.789	−0.827
27.4	α Urs. Min......	−0.026	+0.789	−0.815
29.4	6 Urs. Min., S. P.	−0.008	+0.787	−0.795
29.4	α Urs. Min......	−0.026	+0.787	−0.813
30.4	6 Urs. Min., S. P.	−0.026	+0.777	−0.803
30.4	α Urs. Min......	−0.023	+0.777	−0.800
Nov. 5.4	6 Urs. Min., S. P.	−0.155	+0.768	−0.923
5.4	α Urs. Min......	−0.070	+0.768	−0.838
9.4	6 Urs. Min., S. P.	+0.084	+0.917	−0.833
9.4	α Urs. Min......	+0.080	+0.917	−0.837
1900	CLAMP EAST.	s	s	s
Nov. 19.3	6 Urs. Min., S. P.	+0.095	+1.026	−0.931
19.3	α Urs. Min......	+0.085	+1.026	−0.941
22.3	6 Urs. Min., S. P.	+0.081	+0.990	−0.909
22.3	α Urs. Min......	+0.066	+0.990	−0.924
27.3	6 Urs. Min., S. P.	+0.160	+1.101	−0.941
27.3	α Urs. Min......	+0.165	+1.101	−0.936
30.3	6 Urs. Min., S. P.	+0.289	+1.226	−0.937
30.3	α Urs. Min......	+0.271	+1.226	−0.955
Dec. 5.3	6 Urs. Min., S. P.	+0.294	+1.183	−0.889
5.3	α Urs. Min......	+0.267	+1.183	−0.916
6.3	6 Urs. Min., S. P.	+0.349	+1.174	−0.825
6.3	α Urs. Min......	+0.358	+1.174	−0.816
	Adopted value	....	....	−0.856
11.3	6 Urs. Min., S. P.	+0.420	+1.350	−0.930
11.3	α Urs. Min......	+0.478	+1.350	−0.872
13.3	6 Urs. Min., S. P.	+0.319	+1.252	−0.933
13.3	α Urs. Min......	+0.342	+1.252	−0.910
19.3	6 Urs. Min., S. P.	+0.448	+1.249	−0.801
19.3	α Urs. Min......	+0.400	+1.249	−0.849
21.3	6 Urs. Min., S. P.	+0.448	+1.329	−0.881
21.3	α Urs. Min......	+0.445	+1.329	−0.884
26.3	6 Urs. Min., S. P.	+0.388	+1.300	−0.912
26.3	α Urs. Min......	+0.435	+1.300	−0.865
27.3	6 Urs. Min., S. P.	+0.436	+1.396	−0.960
27.3	α Urs. Min......	+0.465	+1.396	−0.931
1901				
Jan. 3.2	6 Urs. Min., S. P.	+0.459	+1.324	−0.865
3.2	α Urs. Min......	+0.424	+1.324	−0.900
4.2	6 Urs. Min., S. P.	+0.531	+1.401	−0.870
4.2	α Urs. Min... ..	+0.472	+1.401	−0.929
9.2	6 Urs. Min., S. P.	+0.368	+1.326	−0.958
9.2	α Urs. Min......	+0.419	+1.326	−0.907
*12.7	α Urs. Min., S. P.	+0.544	+1.259	−0.715
*14.9	δ Urs. Min......	+0.443	+1.260	−0.817
†18.4	δ Urs. Min., S. P.	+0.465	+1.359	−0.894
†18.4	51 H. Cephei....	+0.401	+1.359	−0.958
*19.2	α Urs. Min......	+0.402	+1.337	−0.935
†28.3	δ Urs. Min., S. P.	+0.498	+1.424	−0.926
†28.3	51 H. Cephei....	+0.481	+1.424	−0.943
*29.4	δ Urs. Min., S. P.	+0.653	+1.430	−0.777
	Adopted value	....	....	−0.889

* Observer, Mr. E. A. BOEGER.

† Observer, Professor W. S. HARSHMAN.

TABLE C.—*The Adopted Values of the Collimation, Level and Azimuth Constants.*

Date.	Sidereal Hour.	*c.*	*b.*	*a.*	Date.	Sidereal Hour.	*c.*	*b.*	*a.*
1900	h h	s	s	s	1900	h h	s	s	s
Sept. 16	0.6—3.4	−0.009	−0.400	+0.094	Dec. 5	0.6—3.6	+0.104	−0.162	+0.344
18	0.6—3.4	−0.022	−0.278	−0.085	6	0.6—3.6	+0.133	−0.136	(*)
19	0.6—3.4	−0.047	−0.223	−0.086	6	0.0 ...	.....	.....	+0.318
23	0.6—3.4	+0.002	−0.282	−0.110	6	2.9 ...	.....	.....	+0.415
24	0.6—3.4	−0.002	−0.321	−0.154	10	0.6—3.6	+0.098	−0.063	+0.420
25	0.6—3.4	−0.004	−0.357	−0.095	11	0.6—1.6	+0.100	−0.070	+0.461
26	0.6—3.4	+0.005	−0.354	−0.078	12	0.6—3.1	+0.112	−0.022	+0.455
27	0.6—3.4	+0.002	−0.382	−0.102	13	0.6—3.1	+0.101	(*)	+0.384
Oct. 6	0.6—3.4	+0.008	−0.381	−0.010	13	0.2 ...	.....	−0.183	.....
9	0.6—3.4	−0.044	−0.185	−0.058	13	3.2 ...	.....	−0.073	.....
10	0.6—3.4	−0.036	−0.149	−0.094	14	0.6—3.4	+0.108	−0.068	+0.386
11	0.6—3.4	−0.016	−0.200	−0.040	19	0.6—3.3	+0.154	−0.092	+0.389
15	0.6—3.4	−0.008	−0.238	−0.108	20	0.6—3.3	+0.160	−0.078	+0.396
16	0.6—3.4	−0.014	−0.198	−0.080	21	0.6—3.3	+0.197	−0.048	+0.438
19	0.6—3.4	−0.080	−0.162	−0.118	26	0.6—3.3	+0.152	−0.108	+0.448
20	0.6—3.4	−0.046	−0.123	−0.066	27	0.6—3.3	+0.168	−0.064	+0.492
21	0.6—3.4	−0.030	−0.184	−0.064	28	0.6—3.1	+0.122	−0.068	+0.425
24	0.6—3.4	−0.020	−0.234	−0.038	1901				
26	0.6—3.4	−0.040	−0.215	−0.080	Jan. 1	0.6—3.1	+0.150	−0.015	+0.394
27	0.6—3.4	−0.036	−0.255	−0.044	2	1.2—3.3	+0.151	−0.037	+0.463
29	0.6—3.4	−0.041	−0.140	−0.054	3	0.6—3.1	+0.142	−0.026	(*)
Nov. 4	1.9—3.0	−0.030	−0.228	−0.007	3	0.1 ...	.....	.....	+0.435
5	0.6—3.4	−0.041	−0.154	−0.060	3	2.4 ...	.....	.....	+0.533
9	0.6—3.4	−0.068	−0.072	+0.078	4	0.6—3.1	+0.138	+0.030	+0.507
11	1.7—3.0	−0.044	−0.062	+0.133	7	1.9—3.1	+0.136	−0.029	+0.478
12	0.6—3.4	−0.056	−0.056	+0.146	8	0.6—3.1	+0.158	−0.102	+0.444
17	0.8—2.7	+0.049	−0.256	+0.197	9	0.6—2.2	+0.146	−0.114	+0.438
21	0.6—2.8	+0.072	−0.358	+0.179	15	0.6—3.1	+0.134	−0.114	+0.360
22	0.6—3.4	+0.074	−0.375	(*)	16	0.8—3.1	+0.121	−0.134	+0.313
22	1.1 ...	.....	.....	+0.133	18	1.2—3.1	+0.140	+0.027	+0.440
22	2.9 ...	.....	.....	+0.213	22	1.7—3.2	+0.150	−0.092	+0.392
27	0.6—3.4	+0.068	−0.248	+0.256	29	1.7—3.1	+0.145	+0.002	+0.565
30	0.6—3.6	+0.100	−0.232	+0.390					

*Interpolated; data on next two lines.

TABLE D.—*The Adopted Corrections and Rates of the Sidereal Clock, Howard, No. 404.*

Date.	Sidereal Hour.	Clock Correction.	Hourly Rate.
	h	s	s
1900 Sept. 16	1.090	−11.230	−0.0422
	3.223	−11.320	
18	1.153	−11.683	−0.0145
	3.158	−11.712	
19	1.030	−11.950	−0.0282
	3.158	−12.010	
23	0.947	−13.383	−0.0538
	3.158	−13.502	
24	1.030	−13.742	−0.0132
	3.158	−13.770	
25	1.030	−14.035	−0.0484
	3.158	−14.138	
26	1.030	−14.490	+0.0103
	3.158	−14.468	
27	1.030	−14.612	+0.0221
	3.158	−14.565	
Oct. 6	1.030	−17.842	−0.0132
	3.158	−17.870	
9	1.030	−18.715	+0.0002
	3.160	−18.710	
10	1.030	−19.145	−0.0282
	3.160	−19.205	
11	1.030	−19.950	−0.0385
	3.162	−20.032	
15	1.030	−23.388	−0.0173
	3.165	−23.425	
16	1.090	−24.123	−0.0381
	3.165	−24.202	
19	1.030	−25.398	−0.0019
	3.168	−25.402	
20	1.030	−25.558	+0.0061
	3.168	−25.545	
21	1.030	−25.688	+0.0028
	3.168	−25.682	
24	1.030	−25.120	+0.0164
	3.168	−25.085	
26	1.030	−24.545	−0.0164
	3.168	−24.580	
27	1.030	−24.192	−0.0061
	3.168	−24.205	
29	1.030	−23.985	+0.0351
	3.165	−23.910	
Nov. 4	2.590	−22.378	*0.0000
5	1.030	−22.382	+0.0220
	3.165	−22.335	
9	1.030	−22.420	−0.0431
	3.165	−22.512	
11	1.945	−22.935	−0.0763
	2.797	−23.000	
12	1.030	−23.195	−0.0164
	3.165	−23.230	
17	1.153	−25.573	−0.0296
	2.300	−25.607	
21	1.028	−26.872	−0.0166
	2.720	−26.900	
1900 Nov. 22	1.030	−26.670	+0.0289
	3.168	−26.608	
27	1.030	−26.255	−0.0220
	3.168	−26.302	
30	1.030	−27.308	−0.0253
	3.168	−27.362	
Dec. 5	1.030	−29.488	−0.0196
	3.168	−29.530	
6	1.030	−30.058	+0.0248
	3.168	−30.005	
10	1.032	−32.392	−0.0169
	3.168	−32.428	
11	1.032	−32.972	*0.0000
12	1.035	−33.870	−0.0259
	2.885	−33.918	
13	1.035	−34.462	−0.0800
	2.735	−34.598	
14	1.035	−35.168	−0.0047
	3.168	−35.178	
19	1.035	−39.838	−0.0020
	3.028	−39.842	
20	0.940	−40.447	+0.0043
	3.028	−40.438	
21	1.038	−41.098	−0.0010
	3.028	−41.100	
26	1.038	−42.870	−0.0241
	3.028	−42.918	
27	1.038	−43.070	−0.0151
	3.028	−43.100	
28	†1.760	†−43.401	†+0.0383
1901 Jan. 1	1.040	−44.968	+0.0094
	2.735	−44.952	
2	1.776	−45.012	+0.0080
	3.028	−45.002	
3	1.040	−45.232	+0.0252
	2.510	−45.195	
4	1.040	−45.608	−0.0096
	2.498	−45.622	
7	2.095	−47.052	+0.1176
	2.937	−46.953	
8	1.040	−47.125	−0.0401
	2.535	−47.185	
9	1.040	−47.488	−0.2000
	1.990	−47.678	
15	1.040	−48.798	0.0000
	2.602	−48.798	
16	1.282	−48.948	+0.0220
	2.552	−48.920	
18	1.465	−49.228	−0.0333
	2.937	−49.277	
22	1.992	−51.238	−0.0549
	2.940	−51.290	
29	1.992	−55.388	−0.0338
	2.940	−55.420	

* Rate assumed.

† Solution by least squares.

TABLE E.—*The Adopted Values of the Readings of the Zenith Distance Micrometer.*

September 15, 1900, to September 17, 1900.

One revolution of screw=19″. 186

Rev.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
37	....	....	2 18. 14	2 20. 06	....	....	....	....	....	....
38	....	....	....	....	....	....	....	2 46. 92	2 48. 84	....
39	....	....	....	....	....	....	....	....	....	....
40	....	....	....	....	....	....	....	....	....	3 29. 13
41	3 31. 05	....	....	....	....	....	....	....	....	3 48. 31
42	3 50. 23	....	3 54. 07	3 55. 99	3 57. 91	3 59. 82	4 1. 74	....	4 5. 58	4 7. 50
43	....	....	....	4 15. 17	4 17. 09	....	....	....	....	4 26. 69
44	4 28. 60	....	....	4 34. 36	4 36. 28	4 38. 20	4 40. 12	4 42. 03	4 43. 95	4 45. 87
45	....	4 49. 71	4 51. 63	....	....	4 57. 38	4 59. 30	....	....	....
46	....	....	....	....	....	5 16. 57	5 18. 49	....	....	5 24. 24
47	5 26. 16	5 28. 08	5 30. 00	....	5 33. 84	5 35. 76	5 37. 67	....	5 41. 51	5 43. 43
48	5 45. 35	5 47. 27	....	....	....	....	....	....	....	....
49	....	....	6 8. 37	6 10. 29	....	....	....	....	....	....
50	....	....	....	....	....	....	....	....	6 39. 07	6 40. 99
51	....	....	....	....	....	....	....	....	....	....
52	....	....	7 5. 93	7 7. 85	....	....	....	....	....	....
53	....	....	....	....	....	....	....	....	7 36. 63	7 38. 55

September 18, 1900, to September 21, 1900.

One revolution of screw=19″. 16

38	2 32. 74	2 34. 64	2 36. 54	2 38. 44	2 40. 34	2 42. 24	2 44. 14	2 46. 04	2 47. 94	2 49. 84
39	2 51. 73	2 53. 63	2 55. 53	2 57. 43	2 59. 33	3 1. 23	3 3. 12	3 5. 02	3 6. 92	3 8. 82
40	3 10. 72	3 12. 61	3 14. 51	3 16. 41	3 18. 31	3 20. 20	3 22. 10	3 24. 00	3 25. 90	3 27. 80
41	3 29. 70	3 31. 59	3 33. 49	3 35. 39	3 37. 29	3 39. 19	3 41. 09	3 42. 99	3 44. 89	3 46. 79
42	3 48. 70	3 50. 60	3 52. 50	3 54. 40	3 56. 31	3 58. 21	4 0. 12	4 2. 02	4 3. 93	4 5. 83
43	4 7. 74	4 9. 64	4 11. 55	4 13. 46	4 15. 37	4 17. 28	4 19. 19	4 21. 10	4 23. 01	4 24. 92
44	4 26. 84	4 28. 75	4 30. 66	4 32. 58	4 34. 49	4 36. 41	4 38. 33	4 40. 24	4 42. 16	4 44. 08
45	4 46. 00	4 47. 91	4 49. 83	4 51. 75	4 53. 67	4 55. 59	4 57. 52	4 59. 44	5 1. 36	5 3. 28
46	5 5. 20	5 7. 13	5 9. 05	5 10. 98	5 12. 90	5 14. 82	5 16. 75	5 18. 68	5 20. 60	5 22. 53
47	5 24. 45	5 26. 38	5 28. 31	5 30. 24	5 32. 16	5 34. 09	5 36. 02	5 37. 95	5 39. 88	5 41. 81
48	5 43. 74	5 45. 67	5 47. 60	5 49. 53	5 51. 47	5 53. 40	5 55. 33	5 57. 26	5 59. 19	6 1. 13
49	6 3. 06	6 4. 99	6 6. 93	6 8. 86	6 10. 79	6 12. 73	6 14. 66	6 16. 60	6 18. 53	6 20. 47
50	6 22. 40	6 24. 34	6 26. 27	6 28. 20	6 30. 14	6 32. 07	6 34. 01	6 35. 94	6 37. 87	6 39. 81
51	6 41. 74	6 43. 67	6 45. 60	6 47. 54	6 49. 47	6 51. 40	6 53. 33	6 55. 26	6 57. 20	6 59. 13
52	7 1. 06	7 2. 99	7 4. 92	7 6. 85	7 8. 78	7 10. 71	7 12. 64	7 14. 57	7 16. 50	7 18. 42
53	7 20. 35	7 22. 28	7 24. 21	7 26. 14	7 28. 07	7 29. 99	7 31. 92	7 33. 85	7 35. 77	7 37. 70

TABLE E.—*The Adopted Values of the Readings of the Zenith Distance Micrometer*—Continued.

September 22, 1900, to January 29, 1901.
One revolution of screw = 19″. 1782

	2′	3′	4′	5′	6′	7′
″	r	r	r	r	r	r
0	36. 257	39. 386	42. 514	45. 643	48. 771	51. 900
1	36. 309	39. 438	42. 566	45. 695	48. 823	51. 952
2	36. 361	39. 490	42. 618	45. 747	48. 876	52. 004
3	36. 414	39. 542	42. 671	45. 799	48. 928	52. 056
4	36. 446	39. 594	42. 723	45. 851	48. 980	52. 108
5	36. 518	39. 646	42. 775	45. 903	49. 032	52. 161
6	36. 570	39. 699	42. 827	45. 956	49. 084	52. 213
7	36. 622	39. 751	42. 879	46. 008	49. 136	52. 265
8	36. 674	39. 803	42. 931	46. 060	49. 188	52. 317
9	36. 726	39. 855	42. 983	46. 112	49. 241	52. 369
10	36. 779	39. 907	43. 036	46. 164	49. 293	52. 421
11	36. 831	39. 959	43. 088	46. 216	49. 345	52. 473
12	36. 883	40. 011	43. 140	46. 268	49. 397	52. 526
13	36. 935	40. 064	43. 192	46. 321	49. 449	52. 578
14	36. 987	40. 116	43. 244	46. 373	49. 501	52. 630
15	37. 039	40. 168	43. 296	46. 425	49. 553	52. 682
16	37. 091	40. 220	43. 348	46. 477	49. 606	52. 734
17	37. 144	40. 272	43. 401	46. 529	49. 658	52. 786
18	37. 196	40. 324	43. 453	46. 581	49. 710	52. 838
19	37. 248	40. 376	43. 505	46. 633	49. 762	52. 891
20	37. 300	40. 428	43. 557	46. 686	49. 814	52. 943
21	37. 352	40. 481	43. 609	46. 738	49. 866	52. 945
22	37. 404	40. 533	43. 661	46. 790	49. 918	53. 047
23	37. 456	40. 585	43. 713	46. 842	49. 971	53. 099
24	37. 509	40. 637	43. 766	46. 894	50. 023	53. 151
25	37. 561	40. 689	43. 818	46. 946	50. 075	53. 203
26	37. 613	40. 741	43. 870	46. 998	50. 127	53. 256
27	37. 665	40. 793	43. 922	47. 051	50. 179	53. 308
28	37. 717	40. 846	43. 974	47. 103	50. 231	53. 360
29	37. 769	40. 898	44. 026	47. 155	50. 283	53. 412
30	37. 821	40. 950	44. 078	47. 207	50. 336	53. 464
31	37. 874	41. 002	44. 131	47. 259	50. 388	53. 516
32	37. 926	41. 054	44. 183	47. 311	50. 440	53. 568
33	37. 978	41. 106	44. 235	47. 363	50. 492	53. 621
34	38. 030	41. 158	44. 287	47. 416	50. 544	53. 673
35	38. 082	41. 211	44. 339	47. 468	50. 596	53. 725
36	38. 134	41. 263	44. 391	47. 520	50. 648	53. 777
37	38. 186	41. 315	44. 443	47. 572	50. 701	53. 829
38	38. 239	41. 367	44. 496	47. 624	50. 753	53. 881
39	38. 291	41. 419	44. 548	47. 676	50. 805	53. 933
40	38. 343	41. 471	44. 600	47. 728	50. 857	53. 986
41	38. 395	41. 523	44. 652	47. 781	50. 909	54. 038
42	38. 447	41. 576	44. 704	47. 833	50. 961	54. 090
43	38. 499	41. 628	44. 756	47. 885	51. 013	54. 142
44	38. 551	41. 680	44. 808	47. 937	51. 066	54. 194
45	38. 604	41. 732	44. 861	47. 989	51. 118	54. 246
46	38. 656	41. 784	44. 913	48. 041	51. 170	54. 298
47	38. 708	41. 836	44. 965	48. 093	51. 222	54. 351
48	38. 760	41. 888	45. 017	48. 146	51. 274	54. 403
49	38. 812	41. 941	45. 069	48. 198	51. 326	54. 455
50	38. 864	41. 993	45. 121	48. 250	51. 378	54. 507
51	38. 916	42. 045	45. 173	48. 302	51. 431	54. 559
52	38. 969	42. 097	45. 226	48. 354	51. 483	54. 611
53	39. 021	42. 149	45. 278	48. 406	51. 535	54. 663
54	39. 073	42. 201	45. 330	48. 458	51. 587	54. 716
55	39. 125	42. 253	45. 382	48. 511	51. 639	54. 768
56	39. 177	42. 306	45. 434	48. 563	51. 691	54. 820
57	39. 229	42. 358	45. 486	48. 615	51. 743	54. 872
58	39. 281	42. 410	45. 538	48. 667	51. 796	54. 924
59	39. 334	42. 462	45. 591	48. 719	51. 848	54. 976
60	39. 386	42. 514	45. 643	48. 771	51. 900	55. 028

TABLE F.—*Inclination and Distance of Zenith Distance Threads.*

Vertical Thread.	Correction for Double Threads.	Correction for Thread A.	Correction for Thread B.	Correction for Thread C.	Vertical Thread.	Correction for Double Threads.	Correction for Thread A.	Correction for Thread B.	Correction for Thread C.
September 15, 1900, to September 21, 1900.					November 17, 1900, to December 18, 1900.				
	″	′ ″	′ ″	′ ″		″	′ ″	′ ″	′ ″
I	+2.26	+3 17.33	−3 10.50	−6 23.73	I	−2.09	+3 12.49	−3 15.44	−6 27.67
II	1.51	16.49	11.38	24.37	II	1.39	13.25	14.65	27.09
III	+0.75	15.65	12.26	25.01	III	−0.70	14.00	13.88	26.52
IV	0.00	14.81	13.14	25.64	IV	0.00	14.76	13.10	25.94
V	−0.75	13.97	14.02	26.27	V	+0.70	15.51	12.32	25.36
VI	1.51	13.13	14.90	26.91	VI	1.39	16.26	11.54	24.78
VII	−2.26	+3 12.29	−3 15.78	−6 27.54	VII	+2.09	+3 17.02	−3 10.75	−6 24.20
September 22, 1900, to November 12, 1900.					December 19, 1900, to January 29, 1901.				
	″	′ ″	′ ″	′ ″		″	′ ″	′ ″	′ ″
I	+1.97	+3 16.90	−3 10.87	−6 24.32	I	−2.26	+3 12.38	−3 15.67	−6 27.78
II	1.31	16.19	11.61	24.86	II	1.50	13.18	14.87	27.16
III	+0.66	15.48	12.35	25.40	III	−0.75	13.97	14.07	26.55
IV	0.00	14.76	13.10	25.94	IV	0.00	14.76	13.27	25.94
V	−0.66	14.04	13.84	26.48	V	+0.75	15.55	12.47	25.33
VI	1.31	13.33	14.58	27.01	VI	1.50	16.35	11.67	24.72
VII	−1.97	+3 12.61	−3 15.32	−6 27.55	VII	+2.26	+3 17.15	−3 10.86	−6 24.10

TABLE G.—*Reduction to Meridian.*

September 16, 1900, to November 12, 1900.				November 17, 1900, to January 29, 1901.			
Z. D. N.	I VII.	II VI.	III V.	Z. D. S.	I VII.	II VI.	III V.
°	″	″	″	°	″	″	″
21	3.70	4.42	4.86	339	6.30	5.58	5.14
20	3.75	4.45	4.86	340	6.25	5.55	5.14
19	3.80	4.47	4.87	341	6.20	5.53	5.13
18	3.84	4.49	4.87	342	6.16	5.51	5.13
17	3.89	4.51	4.88	343	6.11	5.49	5.12
16	3.93	4.52	4.88	344	6.07	5.48	5.12
15	3.97	4.54	4.89	345	6.03	5.46	5.11
14	4.00	4.56	4.89	346	6.00	5.44	5.11
13	4.04	4.57	4.89	347	5.96	5.43	5.11
12	4.07	4.59	4.90	348	5.93	5.41	5.10
11	4.11	4.60	4.90	349	5.89	5.40	5.10
10	4.14	4.62	4.90	350	5.86	5.38	5.10
9	4.17	4.63	4.91	351	5.83	5.37	5.09
8	4.20	4.64	4.91	352	5.80	5.36	5.09
7	4.22	4.66	4.91	353	5.78	5.34	5.09
6	4.25	4.67	4.92	354	5.75	5.33	5.08
5	4.28	4.68	4.92	355	5.72	5.32	5.08
4	4.30	4.69	4.92	356	5.70	5.31	5.08
3	4.33	4.70	4.92	357	5.67	5.30	5.08
2	4.35	4.71	4.93	358	5.65	5.29	5.07
1	4.37	4.72	4.93	359	5.63	5.28	5.07
0	4.39	4.73	4.93	0	5.61	5.27	5.07
359	4.42	4.74	4.93	1	5.58	5.26	5.07
358	4.44	4.75	4.94	2	5.56	5.25	5.06
357	4.46	4.76	4.94	3	5.54	5.24	5.06
356	4.48	4.77	4.94	4	5.52	5.23	5.06
355	4.50	4.78	4.94	5	5.50	5.22	5.06
354	4.52	4.78	4.95	6	5.48	5.22	5.05

An arbitrary constant of 5″ is added in this table, and necessarily appears in the values of the equator points and zenith point corrections of Table H.

TABLE H.—*Equator Points Derived from Direct Observation of Zero Stars and Zenith Point Corrections from Nadir Observations.*

Date.	Sidereal Hour.	Equator Point.	Sid. Hour of Nadir.	Z. P. Corr.	Date.	Sidereal Hour.	Equator Point.	Sid. Hour of Nadir.	Z. P. Corr.
		321° 5′					38° 56′		
1900	h h	″	h	′ ″	1900	h h	″	h	′ ″
Sept. 16	0.6–3.4	25.13	0.4	—0 37.69	Nov. 17	0.8–2.7	44.00	1.1	—1 28.36
18	0.6–3.4	36.47	0.4	0 49.63	21	0.6–2.8	19.71	1.0	1 3.03
19	1.030	37.10	0.4	0 50.25	22	0.6–3.4	17.68	0.4	1 1.85
19	3.158	35.83	...	. .....	27	0.6–3.4	13.11	0.4	0 57.60
23	0.947	40.10	0.4	0 54.25	30	1.030	11.05	0.4	0 55.96
23	3.158	41.60	...	. .....	30	3.168	11.98	...	. .....
24	0.6–3.4	41.64	0.3	0 54.72	Dec. 5	1.030	10.48	0.3	0 55.32
25	1.030	40.82	0.4	0 54.71	5	3.168	11.60	...	. .....
25	3.158	42.68	...	. .....	6	0.6–3.4	10.89	0.4	0 54.40
26	1.030	40.85	0.3	0 54.74	10	1.032	8.95	0.4	0 53.07
26	3.158	41.68	...	. .....	10	3.168	9.68	...	. .....
27	1.030	41.85	0.3	0 54.93	11	0.6–1.6	9.38	0.4	0 52.92
27	3.158	42.45	...	. .....	12	0.6–3.1	8.61	0.2	0 52.96
Oct. 6	1.030	43.02	0.4	0 56.55	13	0.6–3.1	10.60	0.4	0 55.02
6	3.158	43.62	...	. .....	14	0.6–3.4	9.40	0.3	0 54.08
9	0.6–3.4	42.64	0.3	0 56.14	19	1.035	7.02	0.4	0 51.14
10	0.6–3.4	42.90	0.3	0 56.70	19	3.028	7.90	...	. .....
11	0.6–3.4	43.02	0.3	0 56.67	20	0.940	6.33	0.4	0 51.52
15	0.6–3.4	43.08	0.3	0 56.99	20	3.028	6.92	...	. .....
16	1.090	41.70	0.3	0 55.85	21	0.6–3.3	6.42	0.4	0 50.60
16	3.165	42.60	...	. .....	26	0.6–3.3	6.08	0.4	0 50.72
19	0.6–3.4	42.82	0.3	0 56.37	27	0.6–3.3	5.06	0.4	0 49.79
20	1.030	42.82	0.3	0 56.16	28	1.040	4.12	2.3	0 49.53
20	3.168	41.35	...	. .....		2.480	4.82	...	. .....
21	1.030	41.48	0.3	0 55.48	1901				
21	3.168	42.28	...	. .....	Jan. 1	0.6–3.1	4.09	2.2	0 49.24
24	0.6–3.4	42.69	0.3	0 56.32	2	1.2–3.3	5.16	0.3	0 49.41
26	0.6–3.4	43.76	0.3	0 56.46	3	0.6–3.1	4.59	2.3	0 48.70
27	0.6–3.4	43.76	0.3	0 57.22	4	0.6–3.1	4.08	2.3	0 48.79
29	0.6–3.4	43.60	0.3	0 56.27	7	1.9–3.1	4.11	3.2	0 49.23
Nov. 4	1.9–3.0	43.60	1.4	0 56.79	8	0.6–3.1	3.93	1.1	0 48.56
5	0.6–3.4	43.44	0.3	0 57.12	9	0.6–2.2	5.79	1.1	0 50.48
9	0.6–3.4	42.75	0.3	0 55.94	15	1.040	5.42	2.2	0 50.70
11	1.7–3.0	43.16	2.2	0 56.48	15	2.602	6.20	...	. .....
12	0.6–3.4	43.68	2.1	—0 57.32	16	0.8–3.1	7.96	2.2	0 52.69
					18	1.2–3.1	4.66	2.1	0 49.14
					22	1.7–3.2	3.90	2.3	0 48.29
					29	1.992	1.98	2.3	—0 47.53
						2.940	3.13	...	. .....

Latitude of Transit Circle 38° 55′ 14″.1

TABLE J.—*Corrections Due to Unsymmetrical Illumination Dependent on Magnitude.*

Magnitude.	R. A. Cl. W. + Cl. E. −	Decl. Cl. W. − Cl. E. +
	s	″
5.65		0.2
	0.01	
6.25		
	0.02	
6.95		
	0.03	
7.55		
	0.04	
8.15		
	0.05	
8.75		
	0.06	
9.35		
	0.07	
9.95		

TABLE K.—*List of Zero Stars.*

Name.	R. A. 1900.0 (Newcomb).			No. Obs.	Decl. 1900.0 (Newcomb).			No. Obs.
	h	m	s		°	′	″	
ο Cassiopeiæ (A. E.)	0	39	9.029	46	+47	44	13.69	47
γ Cassiopeiæ (A. E.)	0	50	40.146	47	60	10	31.00	47
ξ Andromedæ (Newc.)	1	16	26.999	50	45	0	16.85	50
δ Cassiopeiæ (B. J.)	1	19	16.220	50	59	42	56.57	50
τ Andromedæ (Newc.)	1	34	40.497	1	40	4	14.34	1
φ Persei (B. J.)	1	37	23.368	2	50	11	6.21	2
2 Persei (Newc.)	1	45	47.549	5	50	17	54.55	5
γ Andromedæ (A. E.)	1	57	45.496	7	41	50	59.92	7
β Trianguli (A. E.)	2	3	35.454	11	34	30	51.70	11
6 Persei (Newc.)	2	6	57.070	13	50	36	4.71	13
γ Trianguli (A. E.)	2	11	22.030	5	33	23	5.20	5
θ Persei (A. E.)	2	37	22.001	4	48	48	20.23	4
η Persei (Newc.)	2	43	23.941	2	55	28	50.12	2
τ Persei (B. J.)	2	47	9.856	20	52	21	12.01	20
γ Persei (B. J.)	2	57	33.025	51	53	6	53.92	52
β Persei (A. E.)	3	1	39.575	50	40	34	13.82	50
α Persei (A. E.)	3	17	10.815	37	49	30	19.36	36
2 H. Camelopardalis (B. J.)	3	20	58.092	31	+59	35	30.95	31

NINE-INCH TRANSIT CIRCLE.

OBSERVATIONS AND REDUCTIONS.

1900 SEPTEMBER 16. CLAMP WEST.

KING, OBSERVER. **HAMMOND, ASSISTANT.**

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*ο* Cassiopeiæ......	11	39 26.38	−0.62	**−11.29**	0 39	....	8 44 4.52	47.770 .800	.900 .940		8.6	+47 44	....
2	ξ Andromedæ.....	11	16 44.28	0.59	**11.26**	1 16	....	6 0 4.05	47.940 .950	.075 .135		5.9	45 0	....
3	δ Cassiopeiæ......	11	19 34.75	−0.83	**−11.14**	1 19	....	20 44 4.85	42.705 .705	.910 .945		21.1	+59 43	....
4	B. D. +51° 317	8	24 44.06	−0.68	−11.24	1 24 32.14	−5.82	12 36	......	....		....	+51 34	....
5	B. D.+51° 323	9	26 4.48	0.68	11.24	1 25 52.56	5.85	12 58	......	....		....	51 57	....
6	B. D.+52° 387	9	30 57.40	0.69	11.25	1 30 45.46	5.91	13 36 5.58	45.555	.565		13.5	52 35 58.5	−15.4
7	B. D.+51° 344	8	31 27.42	0.68	11.25	1 31 15.49	5.88	13 6 5.10	(50)...	.510		13.1	52 7 30.7	15.4
8	B. D.+51° 360	9	33 52.29	0.68	11.25	1 33 40.36	5.88	13 6 4.98	53.850	.875		13.1	52 8 35.7	15.2
9	B. D.+51° 364	10	34 28.24	−0.68	−11.25	1 34 16.31	−5.88	13 6 4.82	52.205	.230	C	13.0	+52 1 38.3	−15.1
10	B. D.+52° 424	9	38 16.51	−0.69	−11.25	1 38 4.57	−5.93	13 48 5.58	45.120	.170	(C)	13.6	+52 41 23.9	−14.6
11	B. D.+52° 441	9	42 11.13	0.69	11.26	1 41 59.18	5.94	13 48 5.58	47.030	.105	B	13.7	52 45 13.4	14.2
12	B. D +55° 440	9	49 32.20	0.74	11.26	1 49 20.20	6.18	16 24 4.58	44.515	.580	B	16.4	55 20 26.7	12.8
13	B. D.+55° 464	9	53 9.06	0.74	11.26	1 52 57.06	6.18	16 24 4.52	47.430	.445	C	16.4	55 18 9.6	12.4
14	B. D.+55° 484	9	57 22.33	0.74	11.27	1 57 10.32	6.18	16 24 3.82	45.180	.210	C	16.4	55 17 25.9	11.9
15	B. D.+55° 527	8	3 6.67	−0.74	−11.27	2 2 54.66	-6.20	16 24 4.85	42.225	.250		16.5	+55 22 55.9	−11.3
16	B. D.+55° 551	9	8 24.57	−0.74	−11.27	2 8 12.56	−6.19	16 14 5.28	44.660	.700	(A)	16.4	+55 16 59.6	−10.7
17	B. D.+54° 500	9	8 52.52	0.73	11.27	2 8 40.52	6.18	16 14 5.05	46.525	.580	C	16.2	55 7 53.0	10.7
18	B. D.+54° 511	9	11 53.97	0.73	11.28	2 11 41.96	6.18	16 6 5.80	41.925	.980		16.2	55 4 51.1	10.4
19	B. D.+52° 576	9	17 53.42	0.70	11.28	2 17 41.44	5.99	14 2 5.58	38.700	.740		14.0	52 59 46.7	10.2
20	B. D.+52° 580	9	19 21.10	0.70	11.28	2 19 9.12	5.99	14 2 5.65	44.475	.520	C	13.9	52 55 11.9	10.0
21	B. D.+52° 581	9	20 48.51	−0.70	−11.28	2 20 36.53	-6.00	14 2 5.55	49.250	.245		14.1	+53 3 8.7	− 9.9
22	B. D.+52° 597	8	27 41.13	-0.70	−11.29	2 27 29.14	-5.99	14 2 4.95	43.345	.370	B	14.0	+52 58 1.9	− 9.1
23	B. D.+50° 601	8	34 0.58	0.67	11.29	2 33 48.62	5.84	12 12 5.70	44.860	.930	( )	12.2	51 11 43.5	8.8
24	B. D.+51° 633	9	42 45.94	0.67	11.30	2 42 33.97	5.84	12 12 5.58	40.935	....	(A)	12.2	51 13 43.0	7.8
25	B. D.+47° 709	9	43 38.74	0.62	11.30	2 43 26.82	5.59	8 50 5.02	37.255	.315	B	8.7	47 44 0.2	8.7
26	B. D.+47° 711	8	44 10.77	−0.62	−11.30	2 43 58.85	−5.60	8 50 5.05	44.320	.405	A	8.8	+47 52 42.0	− 8.6
27	γ Persei...........	..	.. ..	....	.....	2 57	....	14 8 5.45	42.505 .500	.650 .715		14.2	+53 6	....
28	β Persei...........	11	1 56.73	−0.54	**−11.47**	3 1	....	1 34 4.12	47.480 .500	.600 .675		1.6	40 34	....
29	α Persei...........	11	17 28.44	0.65	**11.35**	3 17	....	10 30 4.40	47.090 .110	.235 .320		10.5	49 30	....
30	2 H. Camelop......	7	21 16.59	−0.82	**−11.14**	3 21	....	20 36 5.52	43.820 .820	.010 .080		21.1	+59 35	....

1900 SEPTEMBER 18. CLAMP WEST.

KING, OBSERVER. **HAMMOND, ASSISTANT.**

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
31	*ο* Cassiopeiæ......	..	.. ..	....	.....	0 39	....	8 44 9.52	48.230 .255	.395 .440		8.9	+47 44	....
32	γ Cassiopeiæ......	11	50 58.75	−0.50	**11.68**	0 50	....	21 10 10.42	48.265 .260	.405 .445		22.3	60 10 ...	....
33	ξ Andromedæ.....	10	16 44.58	0.41	**11.70**	1 16	....	6 0 9.28	48.340 .360	.520 .590		6.1	45 0	....
34	δ Cassiopeiæ......	11	19 35.04	−0.50	**11.72**	1 19	....	20 44 10.38	43.050 .080	.200 .305		21.9	+59 43	....
35	B. D.+50° 300	9	27 6.57	−0.44	−11.69	1 26 54.44	−5.83	11 58 8.95	47.330	.390		12.3	+50 58 21.0	−16.7
36	B. D.+51° 334	10	28 51.86	0.44	11.69	1 28 39.73	5.88	12 40 9.82	42.210	.315		13.0	51 38 44.9	16.4
37	B. D.+51° 338	7	29 40.54	0.44	11.69	1 29 28.41	5.88	12 40 10.10	44.380	.480		13.0	51 39 24.6	16.3
38	B. D.+52° 393	9	32 49.89	−0.45	−11.69	1 32 37.75	−5.98	13 44 10.20	46.150	.190		14.2	+52 44 2.3	−15.7

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
16 0 41	29.635	70.0	68.6
1 21	29.65	68.6	67.2
1 54	29.64	67.5	65.9
2 23	29.64	66.5	65.0
2 46	29.64	66.0	64.5
3 22	29.64	65.1	63.5
18 0 41	30.02	59.2	57.8
1 22	30.015	57.8	56.2

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 3, 27, 28, 29, 30, 31, 32, 33, 34.	Bisections at I, II, VI, VII.
6, 16, 38.	Bisections at I, III.
7.	Bisection at V.
24.	Bisection at III.
26, 37.	Bisections at V, VII.

Notes.

Sept. 16. Very bad seeing. Thin clouds throughout.
18. Seeing good.

Adopted Equator Point.... 1–30 321° 5′ 25″.13
31–38 36 .47

No.	Eq. Points.
	° ′ ″
1	321 5 25.1
2	25.0
3	24.2
27	25.9
28	24.7
29	25.3
30	25.7
31	37.4
32	37.4
33	36.5
34	34.8

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +51° 357	9	33 31.79	—0.44	—11.69	1 33 19.66	—5.90	12 46 9.38	45.525	.615		13.1	+51 45 47.8	—15.8
2	B. D. +52° 406	9	35 41.47	0.45	11.69	1 35 29.33	5.99	13 52 9.98	47.600	.655		14.3	52 52 29.2	15.4
3	B. D. +54° 383	9	42 58.11	0.46	11.69	1 42 45.96	6.16	15 44 9.78	39.995	.120	B	16.2	54 38 53.0	14.2
4	B. D. +54° 388	9	44 16.04	0.46	11.69	1 44 3.89	6.17	15 44 9.82	44.320	.385		16.3	54 43 28.1	14.1
5	B. D. +54° 396	9	45 43.47	0.46	11.69	1 45 31.32	6.17	15 44 9.75	41.610	.650	B	16.3	54 39 23.0	13.9
6	B. D. +54° 424	9	51 31.33	0.46	11.69	1 51 19.18	6.20	15 54 9.58	43.120	.230		16.5	54 53 5.5	13.2
7	B. D. +54° 444	9	56 45.27	—0.46	—11.69	1 56 33.12	—6.19	15 44 10.05	49.660	.710		16.4	+54 45 12.2	—12.7
8	B. D. +54° 448	7	57 24.68	—0.46	—11.69	1 57 12.53	—6.18	15 44 10.48	49.075	.130	C	16.3	+54 38 34.6	—12.6
9	B. D. +54° 470	9	3 46.31	0.46	11.70	2 3 34.15	6.21	15 54 9.62	41.370	.390	B	16.5	54 49 18.3	11.9
10	B. D. +54° 494	9	8 0.49	0.46	11.70	2 7 48.33	6.22	15 54 9.42	47.040	.140	B	16.5	54 51 7.4	11.4
11	B. D. +54° 525	9	14 22.45	0.46	11.70	2 14 10.29	6.23	15 54 9.65	45.465	.555	(A)	16.6	54 57 5.2	10.6
12	B. D. +54° 535	9	17 12.75	0.46	11.70	2 17 0.59	6.23	15 54 9.60	48.295	.400		16.6	54 54 45.0	10.4
13	B. D. +54° 539	10	18 33.46	—0.46	—11.70	2 18 21.30	—6.22	15 54 9.45	48.170	.270	C	16.5	+54 48 14.9	—10.2
14	B. D. +52° 585	9	22 13.07	—0.45	—11.70	2 22 0.92	—6.07	14 6 9.32	45.370	.450		14.6	+53 5 46.2	—10.2
15	B. D. +53° 532	9	23 23.60	0.45	11.70	2 23 11.45	6.10	14 30 10.10	49.050	.095	C	14.9	53 24 32.2	10.0
16	B. D. +53° 540	9	26 7.57	0.45	11.70	2 25 55.42	6.11	14 30 10.10	53.040	.135		15.1	53 32 15.6	9.6
17	B. D. +53° 546	8	28 50.14	0.45	11.70	2 28 37.99	6.08	14 12 10.08	45.605	.670	A	14.8	53 15 6.3	9.4
18	B. D. +52° 616	9	36 14.97	0.45	11.70	2 36 2.82	6.06	14 12 10.05	47.810	.840	C	14.6	53 6 8.6	8.6
19	B. D. +50° 613	9	36 58.20	0.44	11.70	2 36 46.06	5.90	12 8 10.70	41.800	.880		12.5	51 6 37.3	9.0
20	B. D. +48° 746	8	37 39.87	—0.43	—11.70	2 37 27.74	—5.73	9 54 9.68	39.280	.365	B	10.1	+48 48 30.8	—9.5
21	B. D. +48° 752	9	39 53.43	—0.43	—11.70	2 39 41.30	—5.74	9 54 9.18	44.065	.125	A	10.2	+48 56 31.2	—9.2
22	B. D. +48° 760	8	41 43.33	0.43	11.71	2 41 31.19	5.73	9 54 9.35	38.420	.455	B	10.1	48 48 16.3	9.0
23	B. D. +48° 762	6	42 19.14	0.43	11.71	2 42 7.00	5.72	9 54	......	....		....	48 46	....
24	B. D. +48° 763	7	42 45.36	0.43	11.71	2 42 33.22	5.73	9 54 9.28	44.100	....		10.2	48 53 13.6	8.9
25	B. D. +48° 770	9	44 37.46	0.43	11.71	2 44 25.32	5.73	9 54 9.12	43.450	....	A	10.2	48 56 18.0	8.7
26	B. D. +48° 782	9	45 56.56	—0.43	—11.71	2 45 44.42	—5.74	10 6 9.42	44.880	.935		10.4	+49 5 32.5	—9.3
27	γ Persei	11	57 51.17	—0.45	**—11.65**	2 57	....	14 8 10.62	42.815 .825	.000 .025		14.7	+53 7	....
28	β Persei	11	1 56.92	0.39	**11.75**	3 1	....	1 34 9.08	47.890 .895	.150 .180		1.7	40 34	....
29	α Persei	11	17 28.69	0.43	**11.75**	3 17	....	10 30 9.92	47.475 .490	.655 .700		10.8	49 30	....
30	2 H. Camelop	11	21 16.93	0.50	**—11.70**	3 21	....	20 36 11.82	44.145 .140	.325 .375		21.9	+59 35	....

1900 SEPTEMBER 19. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

31	ο Cassiopeiæ......	11	39 26.85	—0.38	**—11.96**	0 39	....	8 44 9.72	48.205 .235	.400 .430		9.0	+47 44	....
32	γ Cassiopeiæ......	11	50 58.99	0.45	**11.90**	0 50	....	21 10 8.90	48.290 .320	.510 .595		22.4	60 10	....
33	ξ Andromedæ	11	16 44.82	0.37	**11.97**	1 16	....	6 0 9.18	48.405 .415	.590 .635		6.2	45 0	....
34	δ Cassiopeiæ......	11	19 35.25	—0.44	**—11.97**	1 19	....	20 44 9.35	43.225 .210	.395 .445		21.9	+59 43	....
35	B. D. +49° 401	9	24 56.01	—0.39	—11.96	1 24 43.66	—5.79	11 10 8.80	44.575	....		11.5	+50 9 25.4	—17.4
36	B. D. +49° 400	7	24 56.56	0.39	11.96	1 24 44.21	5.79	11 10 9.18	44.490	.525	B	11.4	50 6 12.0	17.4
37	B. D. +50° 297	5	25 59.92	0.39	11.96	1 25 47.57	5.85	11 58 8.95	48.755	....	B	12.3	50 55 31.0	17.1
38	B. D. +45° 379	9	28 51.25	0.37	11.96	1 28 38.92	5.55	7 0	......	....		....	46 1	....
39	B. D. +45° 392	9	31 31.55	—0.37	—11.96	1 31 19.22	5.55	7 0 9.38	47.990	.965	B	7.1	+45 57 14.8	—17.5
40	B. D. +45° 398	9	32 40.13	—0.37	—11.96	1 32 27.80	5.55	7 0 8.80	42.215	.280	B	7.1	+45 55 24.3	—17.4
41	B. D. +45° 416	9	35 40.62	0.37	11.97	1 35 28.28	5.56	7 0 9.00	39.925	.030	B	7.1	45 54 41.4	17.1
42	B. D. +54° 368	8	38 5.49	0.41	11.97	1 37 53.11	6.15	15 22 9.82	39.765	.850	A	16.0	54 23 15.9	15.1
43	B. D. +54° 393	9	45 12.12	—0.41	—11.97	1 44 59.74	—6.17	15 22 9.02	48.295	.410	A	16.0	+54 25 58.6	—14.3

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
18 1 46	30.03	56.7	55.2
2 20	30.025	55.5	54.0
2 46	30.03	55.0	53.3
3 22	30.025	54.0	52.6
19 1 0	30.06	56.8	56.0
1 20	30.06	57.0	56.0

Telescope micrometer bisections are made at III and V, except as noted below.

7, 18.	Bisections at I, III.
13, 20.	Bisections at V, VII.
22.	Bisections at III, IV.
24, 37.	Bisection at VII.
25, 35.	Bisection at V.
27, 28, 29, 30, 31, 32, 33, 34.	Bisections at I, II, VI, VII.

Note.
Sept. 19. Seeing good.

Adopted Equator Point....1-30 321° 5′ 36″.47

31-43 $\begin{cases} 1^h.030 \\ 3\ .158 \end{cases}$ 37 .10 / 35 .83

No.	Eq. Points.
	° ′ ″
27	321 5 35.7
28	36.7
29	36.5
30	36.7
31	37.2
32	37.4
33	37.3
34	36.5

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+54° 413	9	48 31.74	-0.41	-11.97	1 48 19.36	-6.16	15 22 8.80	42.465	.560	C	15.8	+54 14 25.7	-14.0
2	B. D.+54° 431	9	53 14.82	0.41	11.97	1 53 2.44	6.18	15 22 8.90	41.025	.090		15.9	54 20 23.9	13.5
3	B. D.+53° 440	9	57 3.46	0.41	11.98	1 56 51.07	6.18	15 18 9.25	40.215	.345	B	15.8	54 12 56.3	13.0
4	B. D.+54° 452	9	58 16.46	0.41	11.98	1 58 4.07	6.18	15 18 8.98	42.220	.270		15.8	54 16 46.5	12.9
5	B. D.+54° 457	9	59 26.98	-0.41	-11.98	1 59 14.59	-6.20	15 28 9.45	43.315	.390		16.0	+54 27 8.3	-12.7
6	B. D.+53° 453	9	1 55.03	-0.41	-11.98	2 1 42.64	-6.18	15 4 9.45	47.885	.975	A	15.7	+54 7 50.7	-12.5
7	B. D.+53° 470	9	5 18.32	0.41	11.98	2 5 5.93	6.18	15 4 9.75	49.120	.200		15.6	54 5 0.0	12.2
8	B. D.+53° 486	8	8 23.46	0.41	11.98	2 8 11.07	6.18	15 4 9.62	46.195	.310		15.6	54 4 3.8	11.8
9	B. D.+53° 494	9	11 25.56	0.41	11.98	2 11 13.17	6.17	15 4 9.60	44.335	.440	B	15.5	54 0 14.7	11.5
10	B. D.+53° 507	9	14 38.76	-0.41	-11.98	2 14 26.37	6.18	15 4 9.78	43.645	.760		15.6	+54 3 15.0	-11.1
11	B. D.+53° 541	9	26 14.42	-0.41	-11.99	2 26 2.02	-6.19	15 4 9.82	42.965	.115	A	15.7	+54 6 17.4	- 9.7
12	B. D.+51° 598	9	29 34.04	0.40	11.99	2 29 21.65	6.01	13 4 9.50	43.500	.590		13.4	52 3 9.6	9.9
13	B. D.+51° 616	9	35 40.03	0.40	11.99	2 35 27.64	6.01	13 4 9.32	45.235	.325	B	13.4	52 0 29.6	9.2
14	B. D.+51° 620	8	36 56.64	0.40	11.99	2 36 44.25	6.00	13 4 9.00	41.865	....	B	13.4	51 59 25.1	9.0
15	B. D.+50° 623	9	38 51.15	-0.39	- 12.00	2 38 38.76	-5.94	12 8 9.20	41.905	.960	A	12.5	+51 9 54.0	- 9.0
16	B. D.+48° 750	9	39 14.25	-0.38	-12.00	2 39 1.87	-5.74	9 32 8.82	47.350	....		9.8	+48 32 17.9	- 9.6
17	B. D.+43° 576	9	41 16.62	0.36	12.00	2 41 4.26	5.45	4 52 8.70	44.575	.625		5.0	43 51 20.9	10.6
18	B. D.+47° 702	9	42 37.17	0.38	12.00	2 42 24.79	5.65	8 8 8.68	50.930	.005	A	8.4	47 12 41.8	9.6
19	B. D.+46° 644	8	43 52.61	0.38	12.00	2 43 40.23	5.64	8 8	......	....		....	47 0	....
20	B. D.+47° 714	8	44 58.06	0.38	12.00	2 44 45.68	5.71	9 6 10.02	(45)...	.420		9.3	48 5 41.4	9.1
21	B. D.+47° 721	7	46 8.92	-0.38	-12.00	2 45 56.54	-5.70	9 6 9.70	39.825	....	B	9.2	+48 0 41.1	- 9.0
22	*γ* Persei...........	11	57 51.52	-0.40	**-12.02**	2 57	....	14 8 9.30	42.865 .910	.035 .140		14.6	+53 7	....
23	*β* Persei...........	11	1 57.29	0.35	**12.13**	3 1	....	1 34 7.95	48. ... 47.950	.100 .165		1.7	40 34	....
24	*α* Persei...........	11	17 28.89	0.39	**11.95**	3 17	....	10 30	......	....		....	49 30	....
25	2 H. Camelop......	11	21 17.15	-0.44	**-11.94**	3 21	....	20 36 11.50	44.175 .160	.325 .395		21.8	+59 35	....

1900 SEPTEMBER 23. CLAMP WEST.

KING, OBSERVER. HAMMOND, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red. to 1900.0
26	*o* Cassiopeiæ	11	39 28.35	-0.39	**-13.40**	0 39	....	8 44 8.88	48. ... .470	.570 .605		8.8	+47 44	....
27	*γ* Cassiopeiæ	11	51 0.43	0.44	**13.28**	0 50	....	21 10 9.95	48. ... .525	.570 .640		22.1	60 10	....
28	*δ* Cassiopeiæ	11	19 36.85	-0.45	**-13.47**	1 19	....	20 44 9.52	43.400 .410	.510 .585		21.6	+59 43	....
29	B. D.+49° 403	9	25 11.94	-0.39	-13.41	1 24 58.14	-5.86	10 56 8.58	43.660	.690		11.0	+49 55 7.3	-18.5
30	B. D.+50° 297	9	26 1.62	0.40	13.41	1 25 47.81	5.93	11 58 9.12	(48)...	.800	B	12.1	50 55 32.4	18.2
31	B. D.+49° 414	9	28 39.39	0.40	13.41	1 28 25.58	5.88	11 10 9.50	39.470	....	C	11.2	50 1 21.3	18.1
32	B. D.+49° 416	8	30 25.46	0.40	13.41	1 30 11.65	5.89	11 10 9.38	44.620	.715	A	11.3	50 12 41.2	17.9
33	B. D.+49° 422	9	32 1.95	0.40	13.41	1 31 48.14	5.89	11 10 9.40	44.260	.320	B	11.2	50 6 6.0	17.7
34	B. D.+52° 399	9	33 33.38	-0.40	-13.42	1 33 19.56	-6.06	13 24 9.78	48.540	.595		13.6	+52 24 43.9	-17.1
35	B. D.+52° 420	9	37 37.10	-0.40	-13.42	1 37 23.28	-6.08	13 24 9.78	43.730	.810		13.6	+52 23 11.8	-16.7
36	B. D.+54° 408	9	47 31.30	0.42	13.43	1 47 17.45	6.34	16 6 9.50	47.770	.820		16.5	55 6 31.4	15.1
37	B. D.+54° 415	9	49 28.76	0.42	13.43	1 49 14.91	6.35	16 6 9.50	44.320	.380		16.5	55 5 26.2	14.8
38	B. D.+54° 417	9	49 52.48	0.42	13.43	1 49 38.63	6.35	16 6 9.62	49.020	.140	A	16.6	55 10 9.2	14.8
39	B. D.+54° 429	9	52 30.43	0.42	13.43	1 52 16.58	6.36	16 6 9.55	45.875	.950		16.5	55 5 55.4	14.5
40	B. D.+54° 453	9	58 38.26	-0.42	-13.44	1 58 24.40	-6.38	16 6 9.70	44.800	.850	A	16.5	+55 8 49.4	-13.8

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
19 1 48	30.05	56.8	55.9
2 14	30.05	56.7	55.8
2 47	30.05	56.6	56.0
3 22	30.05	56.3	55.3
23 0 42	29.86	61.2	59.6
1 20	29.86	61.0	59.9
1 54	29.855	61.8	59.7

Telescope micrometer bisections are made at III and V, except as noted below.

14, 31.	Bisection at III.
15, 29, 37.	Bisections at I, III.
16, 19, 20, 21, 30.	Bisection at V.
22, 25, 28.	Bisections at I, II, VI, VII.
23, 26, 27.	Bisections at II, VI, VII.
38.	Bisections at V, VII.

Note.

Sept. 23. Seeing fair, slightly better at beginning than at end.

Adopted Equator Point....	1–25	1h.030 3 .158	321° 5′ 37″.10 35 .83
	26–40	0 .947 3 .158	40 .10 41 .60

No.	Eq. Points.
	° ′ ″
22	321 5 35.4
23	35.6
25	36.5
26	40.1
27	40.5
28	39.7

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+54° 469	9	3 29.55	−0.42	−13.44	2 3 15.69	−6.37	16 6 9.50	40.615	.705	B	16.4	+55 1 1.3	−13.2
2	B. D.+54° 483	9	6 31.62	0.41	13.45	2 6 17.76	6.34	15 34 8.88	50.635	.785	A	16.0	54 38 40.8	13.0
3	B. D.+54° 497	9	8 37.38	0.42	13.45	2 8 23.51	6.34	15 34 8.72	46.805	.880	A	16.0	54 37 26.5	12.7
4	B. D.+54° 530	8	16 4.31	0.42	−13.45	2 15 50.44	−6.36	15 34 8.82	47.175	.310	A	16.0	54 37 32.2	11.8
5	B. D.+54° 554	..	.. ..	....	.....	2 21	....	15 34 8.85	49.350	.420	B	15.9	+54 31 47.2	−11.1
6	B. D.+54° 565	..	.. ..	....	.....	2 24	....	15 34 8.78	45.245	.335	C	15.8	+54 27 15.7	−10.8
7	B. D.+50° 589	9	31 42.93	−0.40	−13.47	2 31 29.06	−6.01	11 26 8.88	47.085	.130		11.6	50 26 12.3	10.9
8	B. D.+50° 595	9	32 44.76	0.40	13.47	2 32 30.89	6.00	11 26 8.78	41.700	.810	B	11.5	50 21 14.4	10.8
9	B. D.+49° 753	9	37 7.76	0.40	13.47	2 36 53.89	5.99	11 16 9.15	39.305	.405	B	11.3	50 10 30.4	10.4
10	B. D.+50° 620	9	38 24.69	−0.40	−13.47	2 38 10.82	−6.00	11 16 8.98	43.760	.820	A	11.5	+50 18 23.3	−10.2
11	B. D.+50° 627	9	39 49.29	−0.40	−13.48	2 39 35.41	−5.99	11 16 9.12	43.730	.800	B	11.4	+50 11 55.0	−10.0
12	B. D.+50° 630	8	41 25.92	0.40	13.48	2 41 12.04	6.06	12 8 9.35	46.740	.750		12.3	51 8 6.8	9.6
13	B. D.+50° 636	9	41 55.72	0.40	13.48	2 41 41.84	6.01	11 30 8.40	43.045	.125		11.7	50 28 54.6	9.7
14	B. D.+48° 764	7	43 3.07	0.39	13.48	2 42 49.20	5.86	9 28 9.10	46.610	.740		9.6	48 28 0.4	10.1
15	B. D.+48° 777	9	45 39.84	−0.39	−13.48	2 45 25.97	−5.86	9 28 9.18	47.840	.930		9.6	+48 28 25.3	−9.8
16	γ Persei...........	11	57 53.19	−0.41	**−13.54**	2 57	....	14 8 9.72	43.200 .185	.285 .350		14.4	+53 7	....
17	β Persei...........	11	1 58.88	0.36	**13.59**	3 1	....	1 34 8.55	48.145 .205	.295 .350		1.6	40 34	....
18	α Persei...........	11	17 30.57	0.39	**13.48**	3 17	....	10 30 8.45	47.860 .835	.920 .005		10.7	49 30	....
19	2 H. Camelop......	11	21 18.80	−0.44	**−13.40**	3 21	....	20 36 9.85	44.520 .555	.660 .700		21.6	+59 35	....

1900 SEPTEMBER 24. CLAMP WEST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
20	o Cassiopeiæ......	11	39 28.70	−0.44	**−13.68**	0 39	....	8 44 8.65	48. .... .610	.705 .745		8.8	+47 44	....
21	γ Cassiopeiæ......	11	51 0.95	0.49	**13.73**	0 50	....	21 10 10.10	48.540 .520	.650 .690		22.1	60 10	....
22	ξ Andromedæ.....	11	16 46.76	0.43	**13.79**	1 16	....	6 0 8.62	48.660 .745	.800 .845		6.1	45 0	....
23	δ Cassiopeiæ......	11	19 37.23	−0.49	**−13.77**	1 19	....	20 44 9.98	43.440 .420	.525 .600		21.6	+59 43	....
24	B. D.+49° 399	8	24 20.50	−0.44	−13.75	1 24 6.31	−5.84	10 26 8.85	45.975	.020		10.6	+49 25 49.6	−19.0
25	B. D.+49° 412	9	28 9.40	0.45	13.75	1 27 55.20	5.87	10 38 8.72	44.510	.600		10.8	49 37 22.0	18.5
26	B. D.+49° 418	9	31 16.28	0.45	13.75	1 31 2.08	5.87	10 26 9.12	46.550	.590		10.6	49 26 0.8	18.2
27	B. D.+53° 355	9	33 25.43	0.46	13.75	1 33 11.22	6.19	14 38 9.22	45.980	.980		14.9	53 37 53.9	17.2
28	B. D.+53° 363	9	34 11.86	0.46	13.75	1 33 57.65	6.17	14 26 10.25	43.570	.620	B	14.7	53 21 55.9	17.2
29	B. D.+53° 375	9	37 45.93	−0.46	−13.75	1 37 31.72	−6.19	14 26 9.90	49.285	.345		14.8	+53 26 58.4	−16.8
30	B. D.+52° 433	9	40 3.72	−0.46	−13.75	1 39 49.51	−6.17	14 6 9.92	48.310	.380		14.4	+53 6 39.4	−16.6
31	B. D.+53° 386	8	41 35.17	0.46	13.75	1 41 20.96	6.21	14 28 9.45	44.100	.120	A	14.8	53 30 32.9	16.3
32	B. D.+53° 388	8	41 55.74	0.46	13.75	1 41 41.53	6.20	14 28 9.42	42.935	.075	B	14.7	53 23 43.7	16.3
33	B. D.+53° 395	9	43 31.50	0.46	13.75	1 43 17.29	6.20	14 22 10.48	46.395	.475	A	14.7	53 25 16.5	16.1
34	B. D.+53° 398	5	44 21.01	0.46	13.75	1 44 6.80	6.19	14 22 10.55	44.540	.720	C	14.5	53 15 1.5	16.1
35	B. D.+53° 402	5	45 32.19	−0.46	−13.75	1 45 17.98	−6.21	14 22 10.62	48.235	....		14.7	+53 22 35.5	−15.9
36	B. D.+53° 416	8	48 27.93	−0.46	−13.75	1 48 13.72	−6.22	14 22 10.65	43.030	.050	A	14.7	+53 24 14.5	−15.6
37	B. D.+53° 419	9	48 46.36	0.46	13.75	1 48 32.15	6.25	14 40 9.58	42.695	.800	A	15.0	53 42 5.2	15.5
38	B. D.+53° 437	9	55 43.12	0.46	13.75	1 55 28.91	6.25	14 32 9.25	47.105	.150		14.8	53 32 15.8	14.7
39	B. D.+53° 485	8	8 18.90	0.46	13.76	2 8 4.68	6.28	14 34 9.52	48.430	.480		14.9	53 34 41.7	13.2
40	B. D.+53° 501	9	12 27.01	0.46	13.76	2 12 12.79	6.29	14 38 9.15	47.020	.090		14.9	53 38 14.4	12.8
41	B. D.+53° 525	9	19 50.84	−0.46	−13.76	2 19 36.62	−6.30	14 40 10.15	48.280	.320		15.0	+53 40 39.4	−11.9

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	c
23 2 23	29.87	60.0	59.0
2 47	29.87	59.7	58.2
24 0 50	30.06	64.0	63.0
1 22	30.06	63.5	62.1
1 50	30.06	63.5	62.8

Telescope micrometer bisections are made at III and V, except as noted below.

4, 8, 14, 33, 34, 37.	Bisections at V, VII.
12.	Bisections at III, IV.
16, 17, 18, 19, 21, 22, 23.	Bisections at I, II, VI, VII.
20.	Bisections at II, VI, VII.
35.	Bisection at VII.
36.	Bisections at I, III.

Note.

Sept. 24 Sky quite thick at commencement, but materially improved later.

Adopted Equator Point.... 1–19 $\left\{\begin{array}{l}0^h.947\\3.158\end{array}\right.$ 321° 5′ 40″.10
41 .60
20–41 41 .64

No.	Eq. Points.
	° ′ ″
16	321 5 41.5
17	40.9
18	41.9
19	42.1
20	42.4
21	41.4
22	41.7
23	40.3

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +54° 554	9	22 7.40	-0.46	-13.76	2 21 53.18	6.39	15 32 9.38	45.530	.620		15.9	+54 31 47.3	-11.4
2	B. D. +54° 565	9	24 53.28	0.46	13.76	2 24 39.06	6.38	15 32 9.40	41.435	.530	B	15.8	54 27 15.6	11.1
3	B. D. +40° 567	8	34 32.00	0.42	13.76	2 34 17.82	5.43	1 58 7.78	42.635	.695	B	2.0	40 53 22.9	13.1
4	B. D. +40° 570	9	35 58.04	0.42	13.76	2 35 43.86	5.44	1 58 7.80	47.555	.645		2.0	40 58 10.7	12.9
5	B. D. +42° 614	9	37 25.92	0.43	13.76	2 37 11.73	5.55	4 8 8.38	43.650	.650		4.2	43 6 58.7	12.3
6	B. D. +44° 569	9	38 31.78	0.43	13.76	2 38 17.59	5.67	6 8 8.68	45.300	.355	A	6.2	+45 10 46.9	-11.6
7	B. D. +44° 573	8	40 4.27	-0.43	13.76	2 39 50.08	5.66	6 8 8.32	48.040	.100	C	6.1	+45 1 58.4	-11.5
8	B. D. +44° 577	9	41 20.56	0.43	13.76	2 41 6.37	5.65	5 52 8.45	43.460	.525		5.9	44 50 56.4	11.4
9	B. D. +46° 641	9	42 48.12	0.41	13.76	2 42 33.92	5.77	7 48 8.15	47.560	.580		7.9	46 48 16.3	10.8
10	B. D. +43° 583	8	43 46.06	0.43	13.76	2 43 31.87	5.56	4 22 8.55	43.160	.240	A	4.4	43 24 4.2	11.5
11	B. D. +43° 593	9	46 12.42	0.43	13.76	2 45 58.23	5.56	4 22 8.48	46.575	.660		4.4	43 21 54.9	11.2
12	B. D. +46° 652	9	47 36.57	0.44	13.77	2 47 22.36	5.77	7 52 9.55	45.765	.830	C	7.8	46 45 17.7	10.2
13	B. D. +46° 656	9	49 8.45	-0.44	-13.77	2 48 54.24	5.77	7 52 9.68	42.810	.875	A	8.0	+46 54 2.0	-10.0
14	γ Persei...........	11	57 53.51	0.46	**-13.77**	2 57	....	14 8 9.65	43.215 .200	.315 .375		14.4	+53 7	....
15	β Persei...........	11	1 59.29	0.42	**13.92**	3 1	....	1 34 7.78	48.230 .235	.350 .400		1.6	40 34	....
16	α Persei...........	11	17 30.90	0.44	**13.78**	3 17	....	10 30 7.95	47.930 .920	.040 .100		10.6	49 30	....
17	2 H. Camelop......	11	21 19.15	-0.49	**-13.66**	3 21	....	20 36 9.20	44.560 .540	.670 .780		21.4	+59 35	....

1900 SEPTEMBER 25.

CLAMP WEST.

KING, OBSERVER.

HAMMOND, ASSISTANT.

18	ο Cassiopeiæ......	11	39 29.02	-0.51	**-13.92**	0 39	....	8 44 8.92	48.515 .540	.610 .660		8.8	+47 44	....
19	γ Cassiopeiæ......	11	51 1.13	0.61	**13.78**	0 50	....	21 10 10.05	48.520 .560	.655 .715		22.0	60 10	....
20	ξ Andromedæ.....	11	16 47.24	0.49	**14.19**	1 16	....	6 0 8.62	48.675 .700	.795 .840		6.0	45 0	....
21	δ Cassiopeiæ......	11	19 37.84	0.60	**-14.25**	1 19	....	20 44 10.00	43.440 .440	.560 .580		21.5	+59 43	....
22	B. D. +48° 453	9	25 14.74	0.52	14.05	1 25 0.17	-5.83	9 50 8.98	46.625	.680		9.9	+48 50 1.9	-19.2
23	B. D. +50° 298	9	26 33.35	0.53	14.05	1 26 18.77	5.96	11 42 8.98	47.675	.705	B	11.8	50 39 10.8	18.8
24	B. D. +48° 477	9	30 23.67	0.52	14.06	1 30 9.09	5.84	9 42 9.00	46.200	.250		9.8	48 41 54.6	18.7
25	B. D. +50° 314	9	31 5.26	0.53	14.06	1 30 50.67	5.98	11 46 9.48	44.240	.300		11.9	50 45 18.7	18.3
26	B. D. +44° 341	9	32 50.53	0.49	14.06	1 32 35.98	5.61	5 54 8.55	45.995	.060		5.9	44 53 45.4	19.1
27	B. D. +44° 347	9	35 8.23	0.49	-14.06	1 34 53.68	-5.60	5 32 8.50	44.030	.070		5.6	+44 31 7.2	-19.0
28	B. D. +42° 352	9	36 23.79	0.48	-14.06	1 36 9.25	-5.53	4 12 9.22	45.610	.650	B	4.2	+43 8 23.7	-19.1
29	B. D. +42° 356	9	37 37.53	0.48	14.06	1 37 22.99	5.54	4 12 9.52	47.845	.925		4.2	43 12 20.2	19.0
30	B. D. +42° 361	9	38 33.75	0.48	14.06	1 38 19.21	5.54	4 12 9.25	47.535	.645	B	4.2	43 9 1.2	18.9
31	B. D. +42° 370	9	40 36.85	0.48	14.07	1 40 22.30	5.54	4 12 9.42	48.635	.710		4.2	43 12 35.2	18.6
32	B. D. +43° 373	8	43 31.41	0.48	14.07	1 43 16.86	5.55	4 12 9.25	44.640	.735	A	4.3	43 14 33.4	18.4
33	B. D. +42° 388	9	45 23.27	-0.48	-14.07	1 45 8.72	-5.54	4 2 9.08	47.085	.145		4.1	+43 2 4.8	-18.2
34	B. D. +53° 416	9	48 28.41	0.55	-14.07	1 48 13.79	-6.24	14 24 9.48	47.010	.085		14.6	+53 24 14.4	-15.8
35	B. D. +40° 423	9	55 29.14	0.47	14.08	1 55 14.59	5.44	1 44 8.22	46.860	.950		1.8	40 43 57.6	17.6
36	B. D. +53° 460	9	3 45.82	0.55	14.08	2 3 31.19	6.28	14 22 9.75	47.765	.825		14.6	53 22 28.8	14.1
37	B. D. +52° 549	9	8 49.01	0.54	14.09	2 8 34.38	6.27	14 8 9.45	42.830	.860		14.3	53 6 53.2	13.6
38	B. D. +52° 563	9	12 27.00	0.54	14.09	2 12 12.37	6.28	14 8 9.65	43.315	.425		14.3	53 7 3.5	13.1
39	B. D. +52° 592	9	25 23.98	-0.54	-14.10	2 25 9.34	-6.23	13 24 10.02	45.280	.325		13.6	+52 23 40.0	-11.7
40	B. D. +52° 595	9	27 37.73	-0.54	-14.10	2 27 23.09	-6.23	13 24 9.92	45.140	.205		13.6	+52 23 37.3	-11.5
41	B. D. +52° 602	9	31 13.38	0.54	14.11	2 30 58.73	6.23	13 24 10.08	42.690	.770		13.6	52 22 50.6	11.0
42	B. D. +52° 609	9	33 44.73	0.54	14.11	2 33 30.08	6.23	13 24 10.10	41.805	.910		13.6	52 22 33.8	10.8
43	B. D. +52° 617	9	36 40.51	0.54	14.11	2 36 25.86	6.23	13 24 10.12	43.760	.805	B	13.5	52 19 57.5	10.4
44	B. D. +43° 566	9	37 54.50	0.49	14.11	2 37 39.90	5.62	4 52 9.20	48.445	.465		4.9	43 52 30.8	12.2
45	B. D. +47° 692	9	39 18.93	-0.51	-14.11	2 39 4.31	-5.87	8 46 9.52	48.745	.805	B	8.8	+47 43 28.0	-11.2

Time.			Barom.	Att. Ther.	Ex. Ther.
d	h	m	in.	°	°
24	2	26	30.06	64.0	64.1
	2	51	30.06	64.0	64.2
	3	25	30.065	62.0	65.0
25	0	41	30.085	67.4	66.1
	1	20	30.08	66.8	65.6
	1	49	30.08	66.3	65.0
	2	19	30.07	66.1	65.0

Telescope micrometer bisections are made at III and V, except as noted below.

5, 24 Bisections at I, III.

14, 15, 16, 17, 18, 19, 20, 21. Bisections at I, II, VI, VII.

Note.

Sept. 25. Clouds at beginning and end.

Adopted Equator Point.... 1–17 321° 5′ 41″.64

18–45 { $1^h.030$ 40 .82

3 .158 42 .68

No.	Eq. Points.
	° ′ ″
14	321 5 41.7
15	41.1
16	42.9
17	41.6
18	41.0
19	41.0
20	41.2
21	40.1

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +47° 698	9	41 40.66	−0.51	−14.12	2 41 26.03	−5.87	8 46 9.62	49.400	.440		8.8	+47 46 54.4	−10.9
2	B. D. +42° 633	9	42 32.85	0.48	14.12	2 42 18.25	5.53	3 22 9.38	48.075	.095	B	3.4	42 19 10.2	12.1
3	B. D. +42° 637	9	43 47.67	0.48	14.12	2 43 33.07	5.53	3 22 8.58	40.685	.755	A	3.4	42 23 15.0	11.9
4	B. D. +42° 638	9	44 26.39	0.48	14.12	2 44 11.79	5.56	3 54 9.25	47.585	....		3.9	42 54 12.4	11.7
5	B. D. +46° 648	8	45 20.31	−0.50	−14.12	2 45 5.69	−5.78	7 26 8.68	46.665	.740		7.5	+46 25 57.4	−10.8
6	γ Persei	11	57 53.89	−0.54	**−14.04**	2 57	....	14 8 9.48	43. ... .260	.385 .435		14.3	+53 7	....
7	β Persei	11	1 59.64	0.47	**14.19**	3 1	....	1 34 8.75	48.220 .245	.355 .410		1.6	40 34	....
8	α Persei	11	17 31.48	0.52	**14.19**	3 17	....	10 30 9.08	47.900 .890	.995 .035		10.6	49 30	....
9	2 H. Camelop......	6	21 19.77	−0.60	**−14.13**	3 21	....	20 36 9.98	44.625 .625	....		21.4	+59 35	....

1900 SEPTEMBER 26. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
10	o Cassiopeiæ......	8	39 29.57	−0.50	**−14.47**	0 39	....	8 44 8.25	48.	.700 .715		8.6	+47 44	....
11	γ Cassiopeiæ......	11	51 1.83	0.60	**14.47**	0 50	....	21 10 8.75	48.660 .650	.795 .820		21.5	60 10	....
12	ξ Andromedæ.....	11	16 47.59	0.48	**14.54**	1 16	....	6 0 7.32	48.760 .785	.875 .925		5.9	45 0	....
13	δ Cassiopeiæ......	11	19 38.08	−0.59	**−14.48**	1 19	....	20 44 8.85	43.530 .595	.665 .730		21.0	+59 43	....
14	B. D. +48° 454	9	25 46.72	−0.50	−14.49	1 25 31.73	−5.83	9 30 8.02	41.995	.125	A	9.4	+48 31 47.4	−19.5
15	B. D. +48° 463	9	27 37.07	0.50	14.49	1 27 22.08	5.83	9 30 8.10	38.450	.445	A	9.3	48 30 39.1	19.3
16	B. D. +51° 331	9	28 19.78	0.52	14.49	1 28 4.77	6.03	12 20 7.95	45.010	.090		12.2	51 19 32.7	18.8
17	B. D. +51° 339	9	30 45.51	0.52	14.49	1 30 30.50	6.03	12 20 7.92	49.645	.720	C	12.1	51 14 35.4	18.5
18	B. D. +51° 363	9	34 23.63	−0.52	−14.48	1 34 8.63	−6.05	12 20 7.62	51.975	.035		12.2	+51 21 45.7	−18.1
19	B. D. +53° 395	9	43 32.38	−0.53	−14.48	1 43 17.37	−6.25	14 26 8.10	44.165	.210		14.3	+53 25 19.3	−16.7
20	B. D. +54° 392	9	45 3.55	0.55	14.48	1 44 48.52	6.39	15 56 7.90	42.870	.880		15.8	54 54 54.8	16.2
21	B. D. +53° 402	9	45 32.99	0.53	14.48	1 45 17.98	6.26	14 26 8.45	45.805	.845	B	14.2	53 22 36.5	16.5
22	B. D. +53° 428	9	51 57.77	0.54	14.48	1 51 42.75	6.34	15 6 8.55	40.735	.790	A	15.0	54 7 28.4	15.6
23	B. D. +53° 439	9	55 59.81	−0.54	−14.48	1 55 44.79	6.34	15 6 8.60	39.220	.275	B	14.9	+54 0 31.5	−15.1
24	B. D. +53° 451	9	0 24.40	−0.54	−14.48	2 0 9.38	−6.34	14 50 8.12	46.525	.560		14.7	+53 50 3.8	−14.6
25	B. D. +53° 459	9	3 42.31	0.54	14.48	2 3 27.29	6.35	14 50 8.20	41.480	.530	A	14.7	53 51 42.0	14.3
26	B. D. +53° 474	9	6 47.57	0.54	14.48	2 6 32.55	6.35	14 50 8.22	41.355	.405	B	14.6	53 45 11.6	13.9
27	B. D. +53° 497	9	11 56.33	0.54	14.48	2 11 41.31	6.36	14 48 8.52	39.960	.030	A	14.7	53 49 13.3	13.3
28	B. D. +53° 513	9	15 15.94	−0.54	−14.48	2 15 0.92	−6.37	14 48 8.62	45.250	.330		14.7	+53 47 40.1	−12.9
29	B. D. +53° 519	9	17 41.56	−0.54	−14.48	2 17 26.54	−6.37	14 48 8.58	45.045	.125	B	14.6	+53 44 23.0	−12.6
30	B. D. +53° 539	9	25 51.42	0.54	14.48	2 25 36.40	6.39	14 52 8.52	46.890	.955		15.1	53 52 11.7	11.6
31	B. D. +53° 547	9	28 56.08	0.54	14.48	2 28 41.06	6.39	14 52 8.38	49.125	.180		14.8	53 52 54.0	11.2
32	B. D. +49° 741	9	34 39.13	0.51	14.47	2 34 24.15	6.03	10 40 8.48	41.350	.365	B	10.4	49 35 8.1	11.5
33	B. D. +49° 743	9	34 46.02	−0.51	−14.47	2 34 31.04	−6.04	10 40 8.35	41.315	.425	A	10.5	+49 41 33.2	−11.5
34	B. D. +42° 610	11	36 55.26	−0.47	14.47	2 36 40.32	−5.57	3 36 9.05	44.720	.740		3.5	+42 35 18.5	−12.8
35	B. D. +40° 577	9	37 41.46	0.46	14.47	2 37 26.53	5.49	2 2 8.70	44.885	.950	(A)	2.1	41 4 34.8	13.1
36	B. D. +40° 590	9	40 7.90	0.46	14.47	2 39 52.97	5.49	2 2 8.50	48.795	.830		2.1	41 2 35.8	12.8
37	B. D. +45° 660	9	40 54.57	0.48	14.47	2 40 39.62	5.75	6 30 8.92	46.680	.735		6.4	45 29 59.2	11.7
38	B. D. +47° 700	9	42 4.73	0.50	−14.47	2 41 49.76	−5.92	9 2 9.82	47.625	.700		8.9	+48 2 20.9	−11.2

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
25 2 48	30.06	65.8	64.7
3 26	30.05	65.2	64.2
26 0 35	29.88	73.6	73.3
1 20	29.88	74.0	74.2
1 47	29.87	74.0	74.2
2 16	29.87	73.8	73.8

Telescope micrometer bisections are made at III and V, except as noted below.

1, 15, 32, 36.	Bisections at I, III.
2.	Bisections at II, III.
4.	Bisection at V.
5, 33.	Bisections at V, VII.
6.	Bisections at II, VI, VII.
7, 8, 11, 12, 13.	Bisections at I, II, VI, VII.
9, 19.	Bisections at I, II.
10.	Bisections at VI, VII.
20.	Bisections at III, IV.
21, 35.	Bisections at IV, V.

Note.

Sept. 26. Stars unsteady and somewhat diffuse.

Adopted Equator Point....		
1– 9	1h.030	321° 5′ 40″.82
	3 .158	42 .68
10–40	1 .030	40 .85
	3 .158	41 .68

No.	Eq. Points.
	° ′ ″
6	321 5 42.2
7	41.9
8	43.0
9	43.6
10	40.6
11	41.2
12	41.1
13	40.5

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+44° 582	9	43 25.37	−0.48	−14.47	2 43 10.42	−5.71	6 0 8.10	45.205	.265		5.9	+44 59 29.6	11.7
2	B. D.+45° 667	9	44 30.16	0.48	14.47	2 44 15.21	5.75	6 40 9.78	45.770	.785		6.5	45 39 42.3	11.2
3	B. D.+47° 720	9	45 58.21	−0.49	−14.47	2.45 43.25	5.88	8 30 8.22	47.410	.445		8.4	+47 30 14.3	−10.6
4	*γ* Persei	11	57 54.35	−0.53	**−14.48**	2 57	....	14 8 9.90	43.215 .210	.380 .415		14.0	+53 7	....
5	*β* Persei	11	1 59.95	0.46	**14.48**	3 1	....	1 33 59.12	48. ... .740	.805 .980		1.6	40 34	....
6	*α* Persei	11	17 31.76	0.51	**14.45**	3 17	....	10 30 8.48	47.835 .865	.970 .990		10.3	49 30	....
7	2 H. Camelop......	11	21 20.14	−0.59	**−14.46**	3 21	....	20 36 9.10	44.650 .660	.775 .810		20.9	+59 35	....

1900 SEPTEMBER 27. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
8	*o* Cassiopeiæ......	11	39 29.65	−0.54	**−14.50**	0 39	....	8 44 8.92	48.565 .620	.700 .740		8.6	+47 44	....
9	*γ* Cassiopeiæ......	11	51 1.99	0.64	**14.57**	0 50	....	21 10 10.08	48. ... .665	.730 .800		21.6	60 10	....
10	*ξ* Andromedæ.....	10	16 47.84	0.52	**14.73**	1 16	....	6 0 8.85	48.735 .760	.890 .910		5.9	45 0	....
11	*δ* Cassiopeiæ......	11	19 38.31	−0.63	**−14.65**	1 19	....	20 44 10.72	43.590 .590	.615 .640		21.1	+59 43	....
12	B. D.+48° 455	..	.. ..	....	.....	1 26	....	9 16 8.78	48.550	.580		9.1	+48 16 36.8	−19.8
13	B. D.+48° 470	9	28 41.39	−0.54	−14.60	1 28 26.25	−5.89	10 4 8.38	44.630	.650		9.9	49 3 21.9	19.4
14	B. D.+44° 329	9	29 41.01	0.52	14.60	1 29 25.89	5.62	5 26 8.22	44.340	.435		5.4	44 25 12.5	20.1
15	B. D.+47° 460	9	30 41.33	0.54	14.60	1 30 26.19	5.86	9 14 7.95	43.680	.740		9.1	48 13 2.9	19.3
16	B. D.+41° 321	9	34 2.15	0.50	14.60	1 33 47.05	5.51	3 14 8.65	47.490	.680		3.2	42 14 12.0	20.0
17	B. D.+42° 351	8	36 18.62	−0.50	−14.60	1 36 3.52	−5.53	3 28 7.42	47.905	.955	C	3.3	+42 21 52.3	−19.7
18	B. D.+42° 354	9	36 36.68	−0.50	−14.60	1 36 21.58	−5.53	3 28 7.30	47.100	.250	A	3.5	+42 31 16.1	−19.7
19	B. D.+42° 360	9	38 26.00	0.51	14.60	1 38 10.89	5.55	3 42 7.58	44.775	.860	A	3.7	42 44 33.1	19.4
20	B. D.+42° 373	9	41 46.06	0.51	14.60	1 41 30.95	5.55	3 42 7.42	45.690	.715	C	3.6	42 35 9.9	19.1
21	B. D.+42° 375	9	42 16.37	0.51	14.60	1 42 1.26	5.56	3 42 7.50	50.225	.270		3.7	42 43 2.5	19.0
22	B. D.+41° 352	12	43 16.22	0.50	14.60	1 43 1.12	5.53	3 14 8.25	53.575	.660	B	3.2	42 12 52.3	19.0
23	B. D.+42° 390	9	45 42.54	0.50	−14.60	1 45 27.44	−5.54	3 14 8.32	44.340	.420	A	3.3	+42 16 25.0	−18.8
24	B. D.+41° 364	9	47 30.67	−0.50	−14.60	1 47 15.57	−5.53	3 4 8.38	42.440	.550		3.0	+42 2 33.8	−18.6
25	B. D.+39° 431	9	48 58.01	0.49	14.59	1 48 42.93	5.44	1 10 7.88	47.520	.605		1.2	40 10 8.7	18.8
26	B. D.+38° 391	9	55 8.83	0.49	14.59	1 54 53.75	5.40	0 8 8.10	46.005	.105		0.2	39 7 39.0	18.4
27	B. D.+53° 521	9	17 50.23	0.57	14.58	2 17 35.08	6.35	14 20 9.28	44.460	.515		14.3	53 19 24.1	12.9
28	B. D.+52° 587	9	23 13.88	0.57	14.58	2 22 58.73	6.30	13 38 9.60	43.525	.555		13.6	52 37 5.6	12.4
29	B. D.+51° 587	9	25 18.86	−0.56	−14.58	2 25 3.72	−6.24	12 52 10.05	46.310	.370		12.8	+51 51 58.9	−12.4
30	B. D.+51° 594	9	28 0.89	−0.56	14.58	2 27 45.75	−6.21	12 36 9.25	44.425	.545	B	12.5	+51 32 9.0	−12.1
31	B. D.+51° 599	9	30 17.02	0.56	14.58	2 30 1.88	6.21	12 36 9.20	42.945	.035	B	12.5	51 31 40.3	11.8
32	B. D.+51° 604	9	31 58.71	0.56	14.58	2 31 43.57	6.22	12 36 9.12	45.030	.090	A	12.6	51 38 47.9	11.6
33	B. D.+51° 618	9	36 0.11	0.56	14.58	2 35 44.97	6.21	12 36 9.48	43.735	.815	C	12.4	51 28 42.7	11.1
34	B. D.+50° 617	9	37 45.41	0.56	14.58	2 37 30.27	6.16	11 48 9.50	46.940	.975		11.7	50 48 9.0	11.1
35	B. D.+51° 626	9	40 14.56	−0.56	−14.58	2 39 59.42	−6.24	12 48 9.50	44.030	.015		12.7	+51 47 14.6	−10.6
36	B. D.+51° 628	9	40 27.65	−0.56	−14.58	2 40 12.51	−6.23	12 48 9.85	43.610	.695	B	12.7	+51 43 52.0	−10.5
37	B. D.+49° 773	..	.. ..	....	.....	2 41	....	10 40 8.52	45. ...	.975		10.6	49 39 45.3	10.9
38	B. D.+49° 782	9	43 19.96	0.55	14.57	2 43 4.84	6.06	10 40 8.02	44.385	.450	B	10.5	49 36 4.5	10.7
39	B. D.+45° 665	9	44 21.17	0.52	14.57	2 44 6.08	5.77	6 32	....	....		....	45 25	....
40	B. D.+45° 669	9	45 16.42	0.52	14.57	2 45 1.33	5.78	6 32	....	....		....	45 34	....
41	B. D.+45° 679	9	49 35.87	−0.52	−14.57	2 49 20.78	−5.76	6 32 9.18	48.780	.805	C	6.4	+45 26 12.6	−10.9

Time.		Barom.	Att. Ther.	Ex. Ther.
d	h m	in.	°	°
26	2 46	29.87	73.5	73.4
	3 24	29.86	73.3	73.3
27	0 42	29.88	73.0	72.3
	1 21	29.89	73.0	72.0
	1 50	29.885	72.2	71.2
	2 19	29.885	71.0	69.6
	2 51	29.88	70.9	69.5
	3			

Telescope micrometer bisections are made at III and V, except as noted below.

4, 6, 7, 8, 10, 11.	Bisections at I, II, VI, VII.
5, 9.	Bisections at II, VI, VII.
17, 20, 35.	Bisections at I, III.
18, 22, 36.	Bisections at V, VII.
37.	Bisection at VII.

Note.

Sept. 27. Very bad seeing; at times very thick; many stars too faint to observe. Clouds at beginning and end.

No.	Eq. Points.
	° ′ ″
4	321 5 41.7
5	41.7
6	41.1
7	42.2
8	41.6
9	41.8
10	42.2
11	41.8

Adopted Equator Point....			
	1–7	1h.030	321° 5′ 40″.85
		3 .158	41 .68
	8–41	1 .030	41 .85
		3 .158	42 .45

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	γ Persei	11	57 54.49	−0.57	**−14.54**	2 57	....	14 8 9.10	43. ... .310	.445 .500		14.1	+53 7	....
2	β Persei	11	2 0.22	0.50	**14.68**	3 1	....	1 34 7.48	48.295 .320	.470 .535		1.6	40 34	....
3	α Persei	11	17 31.94	0.55	**14.56**	3 17	....	10 30 7.40	47.970 .005	.100 .150		10.4	49 30	....
4	2 H. Camelop......	11	21 20.24	−0.63	**−14.48**	3 21	....	20 36 8.98	44.680 .705	.820 .845		21.0	+59 35	....

KING, OBSERVER. 1900 OCTOBER 6. CLAMP WEST. BROWN, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
5	o Cassiopeiæ......	11	39 33.12	−0.55	**−17.89**	0 39	....	8 44 8.42	48.785 .815	.950 .990		8.6	+47 44	....
6	γ Cassiopeiæ......	11	51 5.34	0.69	**17.77**	0 50	....	21 10 8.78	49.	.020 .100		21.7	60 10	....
7	ξ Andromedæ.....	10	16 51.16	0.52	**17.92**	1 16	....	6 0 6.05	49.050 .060	.200 .240		5.9	45 0	....
8	δ Cassiopeiæ......	11	19 41.66	−0.68	**−17.79**	1 19	....	20 44 14.12	43.560 .570	.700 .740		21.2	+59 43	....
9	B. D.+47° 442	9	26 41.39	−0.55	−17.85	1 26 22.99	−5.94	8 54 7.42	48.590	.650		8.8	+47 54 35.1	−22.2
10	B. D.+47° 450	9	28 29.81	0.55	17.85	1 28 11.41	5.95	8 54 7.60	49.505	.580		8.8	47 54 53.0	22.0
11	B. D.+47° 463	9	31 4.78	0.55	17.85	1 30 46.38	5.96	8 54 7.38	50.165	.180	C	8.7	47 48 38.7	21.7
12	B. D.+44° 335	9	32 29.30	0.52	17.85	1 32 10.93	5.75	5 16 7.60	45.800	.905	A	5.2	44 18 53.3	22.0
13	B. D.+44° 346	9	35 9.46	0.52	17.85	1 34 51.09	5.76	5 16 7.45	49.605	.680		5.2	44 16 51.1	21.7
14	B. D.+43° 364	9	40 39.88	−0.52	−17.85	1 40 21.51	−5.78	5 16 7.32	45.565	.570	C	5.1	+44 9 6.8	−21.2
15	B. D.+39° 421	9	46 49.62	−0.49	−17.85	1 46 31.28	−5.58	1 10 6.95	47.130	.170	C	1.1	+40 3 32.7	−21.1
16	B. D.+40° 394	9	47 41.33	0.49	17.85	1 47 22.99	5.59	1 10 6.88	51.210	.280	A	1.3	40 14 32.1	20.9
17	B. D.+39° 434	9	49 16.64	0.49	17.85	1 48 58.30	5.59	1 10 6.92	46.660	.730	A	1.3	40 13 4.9	20.8
18	B. D.+39° 447	9	52 46.28	0.49	17.85	1 52 27.94	5.60	1 10 6.98	46.690	.815	C	1.1	40 3 25.0	20.4
19	B. D.+39° 448	9	54 0.28	0.49	17.85	1 53 41.94	5.60	1 10 6.85	41.790	.850	B	1.1	40 5 3.2	20.3
20	B. D.+39° 454	9	56 9.23	−0.49	−17.85	1 55 50.89	−5.61	1 10 6.82	41.430	.435	A	1.2	+40 11 23.7	−20.0
21	B. D.+39° 468	9	0 54.29	−0.49	−17.86	2 0 35.94	−5.62	1 8 7.20	45.855	.945		1.2	+40 7 35.0	−19.5
22	B. D.+50° 587	9	28 48.63	0.57	17.86	2 28 30.20	6.38	11 46 7.70	44.370	.435		11.7	50 45 17.1	14.4
23	B. D.+49° 733	9	33 13.93	0.57	17.86	2 32 55.50	6.33	11 6 7.85	44.910	.970		11.0	50 5 26.8	13.9
24	B. D.+49° 752	9	37 10.70	0.57	17.86	2 36 52.27	6.33	10 58 7.75	45.975	.010		10.9	49 57 47.7	13.4
25	B. D.+46° 622	9	38 17.98	0.53	17.86	2 37 59.59	6.06	7 26 7.82	45.015	.100		7.4	46 25 25.4	14.0
26	B. D.+46° 628	8	39 47.50	−0.54	−17.86	2 39 29.10	−6.09	7 50 7.78	43.585	.680		7.8	+46 48 56.8	−13.7
27	B. D.+46° 638	9	42 15.06	−0.54	−17.86	2 41 56.66	−6.07	7 34 7.30	43.725	.725		7.5	+46 33 0.4	−13.5
28	B. D.+45° 662	7	43 19.37	0.53	17.86	2 43 0.98	6.03	7 0 7.92	44.960	.990		7.0	45 59 23.9	13.4
29	B. D.+40° 612	9	44 29.72	0.49	17.86	2 44 11.37	5.72	1 54 6.08	44.705	.715		1.9	40 53 11.9	14.3
30	B. D.+44° 591	9	45 31.06	0.52	17.86	2 45 12.68	5.95	5 36 7.10	46. ...	.350	A	5.6	44 39 1.7	13.4
31	B. D.+44° 593	7	45 41.16	0.52	17.86	2 45 22.78	5.94	5 36 7.20	45.720	.765	C	5.5	44 29 8.7	13.5
32	B. D.+44° 598	9	49 53.29	−0.52	−17.87	2 49 34.90	−5.94	5 36 6.98	43.350	.460		5.5	+44 34 51.0	−12.9
33	γ Persei	11	57 58.09	−0.60	**−17.82**	2 57	....	14 8 7.08	43.540 .610	.685 .730		14.2	+53 7	....
34	β Persei	11	2 3.74	0.49	**17.98**	3 1	....	1 34 6.50	48.490 .515	.690 .710		1.6	40 34	....
35	α Persei	11	17 35.55	0.56	**17.87**	3 17	....	10 30 7.82	48. ... .125	.225 .265		10.5	49 30	....
36	2 H. Camelop......	11	21 23.98	0.68	**−17.81**	3 21	....	20 36 8.50	44.890 .890	.040 .080		21.2	+59 35	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
27 2 51	29.88	70.9	69.5
3 24	29.88	71.0	70.2
6 0 55	29.95	72.0	70.8
1 20	29.95	71.6	70.5
1 50	29.95	71.1	70.1
2 21	29.95	70.5	69.7
2 51	29.94	70.0	69.0
3 27	29.94	69.4	68.2

Telescope micrometer bisections are made at III and V, except as noted below.

1, 35.	Bisections at II, VI, VII.
2, 3, 4, 5, 7, 8, 33, 34, 36.	Bisections at I, II, VI, VII.
6.	Bisections at VI, VII.
24, 27.	Bisections at I, III.
26, 31.	Bisections at V, VII.
28, 29.	Bisections at III, IV.
30.	Bisection at V.

Note.

Oct. 6. Clouds at beginning and stars difficult to see. Much better at end.

Adopted Equator Point.... 5–36 { 1h.030 321° 5′ 43″.02
3 .158 43 .62

No.	Eq. Points.
	° ′ ″
1	321 5 42.3
2	42.1
3	42.7
4	42.7
5	43.0
6	42.9
7	43.1
8	43.1
33	43.2
34	43.3
35	43.6
36	44.4

1900 OCTOBER 9. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	ο Cassiopeiæ......	11	39 33.74	-0.32	**-18.72**	0 39	....	8 44 10.18	48.700 .710	.810 .855		9.0	+47 44	....
2	γ Cassiopeiæ......	11	51 5.96	0.39	**18.67**	0 50	....	21 10 11.78	48.750 .775	.840 .885		22.6	60 10	....
3	ξ Andromedæ.....	11	16 51.90	0.31	**18.85**	1 16	....	6 0 9.58	48.910 .930	.010 .060		6.2	45 0	....
4	δ Cassiopeiæ......	11	19 42.24	-0.39	**-18.62**	1 19	....	20 44 10.85	43.635 .665	.750 .850		22.1	+59 43	....
5	B. D.+47° 429	9	24 58.55	-0.32	-18.71	1 24 39.52	5.94	8 24 9.88	44.235	.320		8.7	+47 23 14.7	-23.2
6	B. D.+50° 299	9	26 47.69	0.34	18.71	1 26 28.64	6.15	11 22 9.82	46.985	.025	B	11.7	50 18 58.0	22.7
7	B. D.+50° 301	9	27 25.03	0.34	18.71	1 27 5.98	6.16	11 22 9.88	47.740	.810		11.8	50 22 24.9	22.7
8	B. D.+44° 326	9	29 2.57	0.31	18.71	1 28 43.55	5.82	6 6 11.08	44.660	.720		6.3	45 5 21.4	23.0
9	B. D.+47° 462	9	30 57.87	0.32	18.71	1 30 38.84	5.98	8 34 11.78	46.875	.910		8.9	47 34 7.9	22.5
10	B. D.+45° 394	8	31 49.94	-0.32	-18.71	1 31 30.91	-5.86	6 32 11.20	41.880	.950	B	6.7	+45 27 15.6	-22.7
11	B. D.+45° 422	9	36 48.80	-0.32	-18.71	1 36 29.77	-5.88	6 32 10.98	48.295	.310		6.8	+45 32 32.1	-22.1
12	B. D.+45° 424	9	37 29.17	0.32	18.71	1 37 10.14	5.88	6 32 11.25	49.780	.815	(C)	6.7	45 26 34.0	22.1
13	B. D.+40° 364	9	41 1.79	0.30	18.71	1 40 42.78	5.65	2 4 11.32	45.200	.240		2.2	41 3 27.7	22.2
14	B. D.+40° 384	9	46 2.11	0.30	18.71	1 45 43.10	5.67	2 4 11.38	47.960	.050	C	2.1	40 57 55.2	21.7
15	B. D.+40° 390	9	47 13.77	0.30	18.71	1 46 54.76	5.67	2 4 11.28	43.890	.960	B	2.1	40 59 49.7	21.6
16	B. D.+40° 401	9	49 3.65	-0.30	-18.71	1 48 44.64	-5.69	2 10 10.62	44.800	.890		2.3	+41 9 19.9	-21.2
17	B. D.+39° 450	9	54 53.41	-0.30	-18.71	1 54 34.40	-5.62	0 34 9.40	42.320	.450	B	0.6	+39 29 16.8	-20.9
18	B. D.+39° 457	9	58 9.85	0.30	18.71	1 57 50.84	5.63	0 34 9.55	49.690	.745		0.7	39 34 50.7	20.5
19	B. D.+38° 402	8	59 7.96	0.30	18.71	1 58 48.95	5.61	359 58 9.58	46.050	.090		0.0	38 57 39.0	20.5
20	B. D.+38° 416	9	3 13.67	0.29	18.71	2 2 54.67	5.61	359 58 9.38	40.710	.825	B	0.0	38 52 45.1	20.1
21	B. D.+37° 596	9	35 18.90	0.29	18.71	2 34 59.90	5.61	358 50	......	....		....	37 49	....
22	B. D.+41° 517	8	36 12.23	-0.30	-18.71	2 35 53.22	-5.82	2 45 58.58	44.910	.940		2.9	+41 45 8.9	-15.8
23	B. D.+42° 615	7	37 31.41	-0.30	-18.71	2 37 12.40	-5.85	3 12 1.18	47.475	.545		3.4	+42 12 1.1	-15.5
24	B. D.+41° 530	9	39 36.95	0.30	18.71	2 39 17.94	5.85	3 12 1.08	50.520	.540	C	3.3	42 6 34.8	15.3
25	B. D.+43° 574	8	40 25.78	0.31	18.71	2 40 6.76	5.92	4 18 1.12	46.245	.310	A	4.5	43 20 54.6	15.0
26	B. D.+43° 579	9	42 8.38	0.31	18.71	2 41 49.36	5.92	4 18 1.38	50.225	.290	C	4.4	43 12 30.7	14.8
27	B. D.+43° 580	9	42 59.58	0.31	18.71	2 42 40.56	5.96	5 0 0.55	49.060	.095	C	5.1	43 54 7.7	14.5
28	B. D.+43° 586	9	44 31.71	0.31	18.71	2 44 12.69	5.97	5 0 0.55	47.640	.695	B	5.2	43 56 53.8	14.3
29	B. D.+42° 650	9	48 51.61	-0.31	-18.71	2 48 32.59	-5.90	3 50 9.02	42.545	.625		4.0	+42 48 36.7	-14.0
30	γ Persei..........	11	57 58.80	-0.35	**-18.70**	2 57	....	14 8 11.00	43.320 .330	.485 .560		14.8	+53 7	....
31	β Persei...........	11	2 4.42	0.30	**18.78**	3 1	....	1 34 10.55	48.280 .310	.410 .470		1.7	40 34	....
32	α Persei...........	11	17 36.25	0.33	**18.71**	3 17	....	10 30 9.02	48.020 .025	.165 .185		11.0	49 30	....
33	2 H. Camelop......	11	21 24.64	-0.39	**-18.65**	3 21	....	20 36 10.95	44.680 .690	.810 .880		22.1	+59 35	....

1900 OCTOBER 10. CLAMP WEST.

KING, OBSERVER. BROWN, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
34	ο Cassiopeiæ......	11	39 34.13	-0.25	**-19.18**	0 39	....	8 44 9.60	48.770 .790	.910 .980		9.0	+47 44	....
35	γ Cassiopeiæ......	11	51 6.30	0.28	**19.11**	0 50	....	21 10 9.72	48.850 .880	.000 .065		22.6	60 10	....
36	ξ Andromedæ.....	11	16 52.16	0.25	**19.15**	1 16		6 0 8.85	48.940 .960	.080 .145		6.2	45 0	....
37	δ Cassiopeiæ......	10	19 42.66	-0.28	**-19.14**	1 19	....	20 44 9.98	43.800 .785	.860 .940		22.1	+59 43	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
9 0 38	29.955	51.5	50.2
1 19	29.95	50.5	49.0
1 50	29.95	49.6	48.2
2 20	29.94	48.9	47.3
2 50	29.95	48.2	46.1
3 26	29.94	47.1	46.0
10 0 44	29.89	51.0	50.2

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 3, 4, 30, 31, 32, 33, 34, 35, 36, 37.	Bisections at I, II, VI, VII.
6, 9, 11, 21.	Bisections at I, III.
19, 22.	Bisections at V, VI.
23.	Bisections at V, VII.
24.	Bisections at III, IV.
25, 27.	Bisections at IV, V.

Notes.

Oct. 9. Stars unsteady and diffuse. Seeing poor.
10. Seeing very poor at beginning, considerably better at close.

Adopted Equator Point....1–33 321° 5′ 42″.64

No.	Eq. Points.
	° ′ ″
1	321 5 42.2
2	42.7
3	43.1
4	41.5
30	42.8
31	42.5
32	43.3
33	43.0
34	43.0
35	43.0
36	43.2
37	42.5

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+46° 373	9	25 13.30	0.25	−19.16	1 24 53.89	−5.93	8 4 9.25	45.005	.010		8.3	+47 3 28.4	−23.5
2	B. D.+48° 455	9	25 51.81	0.25	19.16	1 25 32.40	6.01	9 16 9.22	48.790	.810		9.6	48 16 41.1	23.3
3	B. D.+45° 376	9	28 25.60	0.25	19.16	1 28 6.19	5.85	6 24 8.80	49.715	.795	A	6.7	45 28 11.2	23.3
4	B. D.+45° 383	9	29 41.07	0.25	19.16	1 29 21.66	5.85	6 24 8.72	52.570	.615	C	6.5	45 19 24.6	23.2
5	B. D.+46° 397	9	30 44.09	0.25	19.16	1 30 24.68	5.95	7 50 17.78	44.100	.125		8.1	46 49 16.4	22.9
6	B. D.+44° 337	9	32 45.86	−0.25	−19.16	1 32 26.45	−5.86	6 10 8.32	45.870	.895		6.4	+45 9 41.3	−22.9
7	B. D.+43° 343	10	33 46.29	−0.24	−19.16	1 33 26.89	−5.79	4 54 8.80	43.955	.010		5.0	+43 53 2.3	−22.9
8	B. D.+44° 352	9	36 16.14	0.25	19.16	1 35 56.73	5.87	6 4 8.82	48.900	.935		6.3	45 4 42.0	22.5
9	B. D.+44° 354	9	37 36.56	0.25	19.16	1 37 17.15	5.86	5 50 8.55	45.150	.210		6.0	44 49 27.7	22.4
10	B. D.+41° 347	9	42 10.29	0.24	19.16	1 41 50.89	5.72	2 56	......	....		...	41 55	....
11	B. D.+40° 400	9	48 52.57	0.24	19.17	1 48 33.17	5.66	1 24 8.60	47.800	.840		1.5	40 24 13.9	21.7
12	B. D.+40° 406	9	51 39.07	−0.24	−19.17	1 51 19.66	−5.67	1 24 8.50	44.315	.375	C	1.4	+40 16 41.1	−21.4
13	B. D.+40° 412	9	52 45.84	−0.24	−19.17	1 52 26.43	−5.68	1 24 8.68	42.945	.020	A	1.5	+40 25 56.0	−21.2
14	B. D.+37° 452	9	54 43.54	0.24	19.17	1 54 24.13	5.57	359 8 8.48	44.355	.470		0.8	38 7 6.1	21.3
15	B. D.+37° 465	9	57 3.15	0.24	19.17	1 56 43.74	5.57	359 8 8.45	44.880	.950	B	0.9	38 4 3.8	21.1
16	B. D.+37° 468	9	57 31.25	0.24	19.17	1 57 11.84	5.58	359 8 8.65	44.010	.085	A	0.8	38 10 14.1	21.0
17	B. D.+37° 488	8	3 19.49	0.24	19.17	2 3 0.08	5.59	359 8	......	....		...	38 3	....
18	B. D.+37° 589	9	32 35.09	−0.24	−19.19	2 32 15.66	−5.61	358 32 8.42	45.540	.620		1.4	+37 31 27.8	−17.1
19	B. D.+39° 613	9	36 39.23	−0.24	−19.19	2 36 19.80	−5.71	0 22 8.72	47.760	.815		0.5	+39 22 12.4	−16.3
20	B. D.+40° 581	9	38 18.12	0.24	19.19	2 37 58.69	5.77	1 18 8.35	48.930	.025	A	1.5	40 21 50.6	16.0
21	B. D.+39° 628	9	40 3.05	0.24	19.19	2 39 43.62	5.76	1 18 8.08	47.590	.630	C	1.3	40 11 44.0	15.8
22	B. D.+41° 538	9	41 7.95	0.24	19.19	2 40 48.52	5.85	2 46 14.85	45.330	.355		2.9	41 45 33.7	15.4
23	B. D.+41° 541	9	41 51.59	0.24	19.19	2 41 32.16	5.83	2 28 8.95	44.280	.310		2.6	41 27 7.7	15.3
24	B. D.+41° 543	9	42 37.79	−0.24	−19.19	2 42 18.36	−5.87	3 0 8.82	47.220	.275		3.1	+42 0 4.4	−15.1
25	B. D.+40° 610	9	44 16.78	−0.24	−19.19	2 43 57.35	−5.78	1 26 8.88	42.465	.470		1.5	+40 24 32.6	−15.2
26	B. D.+41° 550	9	44 32.63	0.24	19.19	2 44 13.20	5.84	2 36 8.98	44.875	.940	B	2.7	41 32 4.7	15.0
27	B. D.+41° 556	9	46 20.04	−0.24	−19.19	2 46 0.61	−5.85	2 36 8.62	49.505	.580		2.7	+41 36 48.1	−14.7
28	*γ* Persei...........	11	57 59.16	0.26	**−19.12**	2 57	....	14 8 9.98	43.370 .410	.555 .600		14.7	+53 7	....
29	*β* Persei...........	11	2 4.89	0.24	**19.28**	3 1	....	1 34 8.12	48.430 .460	.600 .625		1.7	40 34	....
30	*α* Persei...........	11	17 36.75	0.25	**19.26**	3 17	....	10 30 9.15	48.000 .025	.110 .210		10.9	49 30	....
31	2 H. Camelop......	10	21 25.08	−0.28	**−19.16**	3 21	....	20 36 10.10	44.745 .750	.895 .930		22.0	+59 35	....

1900 OCTOBER 11. CLAMP WEST.

KING, OBSERVER. BROWN, ASSISTANT.

32	*o* Cassiopeiæ	11	39 34.93	−0.31	**19.92**	0 39	....	8 44 9.12	48.865 .870	.935 .995		8.9	+47 44	....
33	*γ* Cassiopeiæ	11	51 7.23	0.38	**19.93**	0 50	....	21 10 10.00	48.885 .900	.975 .085		22.2	60 10	....
34	ξ Andromedæ	11	16 53.06	0.30	**19.99**	1 16	....	6 0 8.60	49.000 .010	.115 .175		6.1	45 0	....
35	*δ* Cassiopeiæ	11	19 43.59	−0.38	**−19.96**	1 19	....	20 44 9.75	43.815 .825	.945 .005		21.7	+59 43	....
36	B. D.+46° 370	9	24 32.28	−0.30	−19.96	1 24 12.02	−5.90	7 30 8.40	46.365	.425		7.6	+46 29 52.3	−23.9
37	B. D.+46° 389	9	29 56.77	0.30	19.97	1 29 36.50	6.93	7 30 8.48	45.800	.830	C	7.5	46 23 16.0	23.3
38	B. D.+46° 393	9	30 25.57	0.30	19.97	1 30 5.30	5.94	7 34 12.55	44.350	.510	A	7.7	46 36 33.7	23.2
39	B. D.+46° 404	9	31 39.11	0.30	19.97	1 31 18.84	5.94	7 34 12.62	43.885	.900	C	7.6	46 26 42.4	23.1
40	B. D.+43° 337	9	33 5.84	0.29	19.97	1 32 45.58	5.74	4 36 8.35	44.670	.735	A	4.7	43 38 31.7	23.2
41	B. D.+43° 341	8	33 36.32	0.29	19.97	1 33 16.06	5.78	4 36 8.40	44.405	.495	B	4.6	43 31 57.2	23.2
42	B. D.+41° 329	9	36 42.72	−0.29	−19.97	1 36 22.46	−5.68	2 26 8.08	46.465	.490		2.5	+41 25 49.6	−23.1

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
10 1 20	29.895	50.9	49.3
1 50	29.895	50.1	49.1
2 20	29.89	49.6	48.6
2 50	29.89	48.9	48.2
3 26	29.875	48.5	47.6
11 0 42	29.81	55.6	56.0
1 20	29.81	55.8	56.0

Telescope micrometer bisections are made at III and V, except as noted below.

1, 15, 21, 22, 25, 37, 42.	Bisections at I, III.
2, 24, 39.	Bisections at IV, V.
5.	Bisections at VI, VII.
7, 26, 41.	Bisections at V, VII.
28, 29, 30, 31, 32, 33, 34, 35.	Bisections at I, II, VI, VII.

Note.

Oct. 10. Seeing very poor. Stars diffuse and unsteady.

Adopted Equator Point.... 1–31 321° 5′ 42″.90
32–42 43 .02

No.	Eq. Points.
	° ′ ″
28	321 5 42.6
29	42.9
30	42.9
31	43.1
32	43.2
33	42.8
34	43.4
35	42.6

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +41° 342	9	41 37.36	0.29	−19.98	1 41 17.09	−5.72	2 42 8.75	47.060	.115		2.8	+41 42 1.2	22.5
2	B. D. +41° 353	9	43 40.34	0.29	19.98	1 43 20.07	5.71	2 28 8.58	42.640	.745	A	2.6	41 29 51.3	22.3
3	B. D. +41° 362	9	47 9.23	0.28	19.98	1 46 48.97	5.72	2 28 8.65	45.985	.040	C	2.4	41 21 14.1	22.0
4	B. D. +41° 374	9	50 54.52	0.28	19.98	1 50 34.26	5.74	2 22 8.82	44.650	.755	A	2.5	41 24 30.0	21.5
5	B. D. +41° 377	8	51 35.58	0.28	19.98	1 51 15.32	5.73	2 22 8.72	41.450	.575	B	2.4	41 16 59.5	21.5
6	B. D. +40° 415	9	54 5.26	0.28	19.98	1 53 45.00	5.72	1 52 8.20	47.700	.770		2.0	40 52 12.3	21.2
7	B. D. +40° 421	9	55 7.33	−0.28	−19.98	1 54 47.07	−5.72	1 52 8.22	49.945	.035		2.0	+40 52 55.5	−21.1
8	B. D. +39° 464	9	0 9.19	0.28	−19.99	1 59 48.92	−5.66	0 18 8.08	44.630	.670		0.4	+39 17 12.4	−20.8
9	B. D. +38° 408	9	0 48.54	0.28	19.99	2 0 28.27	5.62	359 26 7.88	46.160	.215		0.5	38 25 39.8	20.8
10	B. D. +37° 486	9	2 52.96	0.27	19.99	2 2 32.70	5.57	358 24 7.62	45.515	.580		1.5	37 23 26.3	20.7
11	B. D. +39° 609	9	36 3.93	0.28	20.01	2 35 43.64	5.77	1 6 8.35	43.830	.900		1.2	40 4 58.4	16.5
12	B. D. +42° 613	9	37 30.97	0.29	20.01	2 37 10.67	5.93	3 48 7.20	44.370	.430		3.9	42 47 10.2	15.8
13	B. D. +40° 582	9	38 22.29	−0.28	−20.01	2 38 2.00	−5.81	1 42 6.25	44.680	.735		1.8	+40 41 12.1	−16.1
14	B. D. +40° 589	9	39 54.99	−0.28	−20.01	2 39 34.70	−5.80	1 30 8.28	45.910	.965		1.6	+40 29 37.5	−15.9
15	B. D. +42° 628	9	41 19.35	0.29	20.01	2 40 59.05	5.95	4 0 8.82	44.450	.510		4.1	42 59 12.5	15.3
16	B. D. +40° 602	9	42 30.43	0.28	20.01	2 42 10.14	5.81	1 32 8.32	42.965	.060	A	1.6	40 33 56.2	15.6
17	B. D. +45° 665	9	44 26.89	0.30	20.02	2 44 6.57	6.11	6 32 8.98	46.890	.985	C	6.5	45 25 36.3	14.5
18	B. D. +45° 669	9	45 22.16	0.30	20.02	2 45 1.84	6.12	6 32 8.70	45.030	.075	A	6.7	45 34 40.7	14.4
19	B. D. +42° 643	9	46 32.43	−0.29	−20.02	2 46 12.12	−5.91	3 22 8.72	46.265	.305		3.4	+42 21 45.3	−14.8
20	*γ* Persei	11	58 0.14	−0.33	**−20.01**	2 57	....	14 8 8.38	43.535 .550	.665 .725		14.5	+53 7	....
21	*β* Persei	11	2 5.78	0.28	**20.11**	3 1	....	1 34 8.45	48.445 .440	.590 .665		1.7	40 34	....
22	*α* Persei	11	17 37.57	0.32	**19.99**	3 17	....	10 30 8.88	48.	.195 .230		10.8	49 30	....
23	2 H. Camelop......	11	21 26.06	−0.37	**−20.02**	3 21	....	20 36 9.75	44.770 .785	.905 .995		21.7	+59 35	....

1900 OCTOBER 15. CLAMP WEST.

KING, ORSERVER. BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
24	*o* Cassiopeiæ	11	39 38.35	−0.34	**23.30**	0 39	....	8 44 8.72	48.925 935	.045 .105		8.8	+47 44	....
25	*γ* Cassiopeiæ	11	51 10.56	0.38	**23.25**	0 50	....	21 10 9.72	48.990 000	.115 .170		22.1	60 10	....
26	*ξ* Andromedæ.....	11	16 56.68	0.33	**23.52**	1 16	....	6 0 8.42	49.010 .060	.185 .230		6.1	45 0	....
27	*δ* Cassiopeiæ	11	19 47.16	−0.38	**−23.48**	1 19	....	20 44 10.20	43.835 850	.995 .035		21.6	+59 43	....
28	B. D. +51° 317	9	24 56.14	−0.35	−23.39	1 24 32.40	−6.30	12 36 10.05	43.615	.715		12.8	+51 35 6.7	−24.4
29	B. D. +51° 323	9	26 16.57	0.35	23.40	1 25 52.82	6.34	12 58 9.88	45.470	.545		13.2	51 57 42.3	24.2
30	B. D. +52° 387	9	31 9.45	0.35	23.40	1 30 45.70	6.43	13 36 11.20	46.635	.640		13.9	52 36 6.9	23.6
31	B. D. +51° 344	9	31 39.47	0.35	23.40	1 31 15.72	6.39	13 6 12.58	51.400	.430		13.4	52 7 38.5	23.5
32	B. D. +51° 360	9	34 4.39	0.35	−23.40	1 33 40.64	−6.41	13 6 12.80	44.660	.680	A	13.4	+52 8 45.1	−23.2
33	B. D. +51° 364	9	34 40.48	−0.35	−23.40	1 34 16.73	−6.40	13 6 12.90	42.985	.070	B	13.3	+52 1 44.7	−23.2
34	B. D. +52° 406	9	35 53.43	0.35	23.40	1 35 29.68	6.48	13 48 8.95	50.780	.880	A	14.2	52 52 37.3	23.0
35	B. D. +52° 424	9	38 28.75	0.35	23.40	1 38 5.00	6.49	13 48 9.02	46.270	.325	C	14.0	52 41 31.4	22.7
36	B. D. +52° 441	9	42 23.30	0.35	23.40	1 41 59.55	6.52	13 48 8.90	48.205	.310	B	14.0	52 45 21.7	22.2
37	B. D. +55° 440	9	49 44.25	0.36	23.40	1 49 20.49	6.82	16 24 9.48	45.630	.705	B	16.8	55 20 35.4	21.0
38	B. D. +55° 464	9	53 21.48	−0.36	−23.40	1 52 57.72	−6.84	16 24 9.18	48.480	.540	C	16.8	+55 18 16.8	−20.6
39	B. D. +55° 484	9	57 34.71	−0.36	23.40	1 57 10.95	−6.86	16 24 9.70	46.210	.265	C	16.8	+55 17 33.8	−20.0
40	B. D. +55° 527	9	3 18.78	0.36	23.41	2 2 55.01	6.91	16 24 10.02	43.380	.460		16.9	55 23 6.1	19.3
41	B. D. +55° 551	9	8 36.98	0.36	23.41	2 8 13.21	6.93	16 14 9.20	45.805	.815	A	16.8	55 17 6.7	18.6
42	B. D. +54° 500	9	9 5.00	0.36	23.41	2 8 41.23	6.91	16 14 9.40	47.710	.720	C	16.6	55 8 1.6	18.6
43	B. D. +54° 511	9	12 6.38	0.36	23.41	2 11 42.61	6.92	16 6 9.80	43.045	.090		16.5	55 4 58.7	17.7
44	B. D. +52° 576	9	18 5.83	0.35	23.41	2 17 42.07	−6.74	14 0 9.85	46.010	.095		14.3	+52 59 53.8	−17.7

Time.	Barom.	Att. Ther.	Ext. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
11 1 53	29.81	55.5	55.2	5, 19.	Bisections at V, VI.	20	321 5 43.1
2 20	29.81	56.0	56.0	8, 11, 12, 30, 32, 41.	Bisections at I, III.	21	43.1
2 50	29.81	55.2	55.0	20, 21, 23, 24, 25, 26, 27.	Bisections at I, II, VI, VII.	22	43.1
3 27	29.795	52.5	52.0	22.	Bisections at VI, VII.	23	42.9
15 0 42	29.85	60.5	60.8	34.	Bisections at V, VII.	24	43.5
1 20	29.84	59.8	59.0	Note.		25	43.2
1 50	29.835	59.0	58.0	Oct. 15. Fair seeing.		26	43.0
						27	42.3

Adopted Equator Point.... 1–23 321° 5′ 43″.02
24–44 43 .08

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +52° 580	9	19 33.64	−0.35	−23.41	2 19 9.88	−6.74	14 2 9.58	45.590	.680	C	14.2	+52 55 19.5	−17.5
2	B. D. +52° 581	9	21 1.01	0.35	23.41	2 20 37.25	6.76	14 2 9.62	50.350	.430		14.4	53 3 16.9	17.3
3	B. D. +52° 585	9	22 25.34	0.35	23.41	2 22 1.58	6.77	14 2 9.40	48.430	.495	A	14.4	53 5 54.4	17.1
4	B. D. +52° 597	9	27 53.61	0.35	23.41	2 27 29.85	6.78	14 2 9.42	44.480	.585	B	14.3	52 58 11.1	16.4
5	B. D. +50° 599	9	34 4.69	0.35	23.41	2 33 40.93	6.63	12 12 8.92	46.190	.215		12.4	51 11 54.7	15.8
6	B. D. +50° 601	7	34 13.05	0.35	23.41	2 33 49.29	6.63	12 12 9.22	46.040	.145		12.4	51 11 50.3	15.8
7	B. D +50° 613	9	37 10.51	−0.35	−23.42	2 36 46.74	−6.64	12 12 9.15	50.230	.290	C	12.4	+51 6 46.0	−15.4
8	B. D. +50° 623	9	39 3.28	−0.35	−23.42	2 38 39.51	−6.64	12 12 9.22	50.320	.345	B	12.4	+51 10 1.3	−15.2
9	B. D. +50° 630	9	41 36.38	0.35	23.42	2 41 12.61	6.65	12 12 9.25	44.760	.810	B	12.4	51 8 13.9	14.8
10	B. D. +51° 633	9	42 58.48	0.35	23.42	2 42 34.71	6.66	12 12 9.15	42.110	.135	A	12.5	51 13 51.6	14.6
11	B. D. +47° 709	7	43 51.27	0.34	23.42	2 43 27.51	6.37	8 50 3.68	38. ...	.675	B	8.9	47 44 6.9	15.0
12	B. D. +47° 711	9	44 23.37	0.34	23.42	2 43 59.61	6.38	8 50 4.08	45.655	.750	(A)	9.0	47 52 49.0	15.0
13	B. D. +48° 782	9	46 8.90	−0.34	−23.42	2 45 45.14	−6.48	10 6 9.08	45.520	.595		10.3	+49 5 39.6	−14.5
14	γ Persei...........	11	58 3.70	−0.35	**−23.45**	2 57	....	14 8 9.45	43.490 .500	.630 .680		14.5	+53 7	....
15	β Persei...........	11	2 9.27	0.32	**23.47**	3 1	....	1 34 8.95	48.400 .455	.615 .650		1.6	40 34	....
16	α Persei...........	10	17 41.14	0.34	**23.43**	3 17	....	10 30 8.62	48.100 .145	.235 .315		10.7	49 30	....
17	2 H. Camelop......	11	21 29.54	−0.38	**−23.35**	3 21	....	20 36 10.10	44.885 .900	.020 .070		21.6	+59 35	....
	KING, OBSERVER.					1900 OCTOBER 16.		CLAMP WEST.					BOEGER, ASSISTANT.	
18	o Cassiopeiæ	11	39 39.12	−0.29	**−24.12**	0 39	....	8 44 9.68	48.735 .770	.900 .960		9.1	+47 44	....
19	ξ Andromedæ	11	16 57.26	0.29	**24.13**	1 16	....	6 0 9.75	48.940 .960	.090 .135		6.2	45 0	....
20	δ Cassiopeiæ	11	19 47.77	−0.34	**−24.12**	1 19	....	20 44 10.78	43.725 .750	.855 .005		22.2	+59 43	....
21	B. D. +50° 297	9	26 12.39	−0.30	−24.14	1 25 47.95	−6.26	11 58 10.15	49.050	.175	B	12.5	+50 55 39.1	−24.5
22	B. D. +50° 300	9	27 19.42	0.30	24.14	1 26 54.98	6.28	11 58 10.05	47.875	.970		12.5	50 58 29.3	24.4
23	B. D. +51° 334	9	29 4.50	0.31	24.14	1 28 40.05	6.34	12 40 10.00	42.870	.960		13.2	51 38 53.9	24.2
24	B. D. +51° 338	9	29 53.30	0.31	24.14	1 29 28.85	6.35	12 40 10.28	44.880	.950		13.2	51 39 32.5	24.1
25	B. D. +52° 393	8	33 2.57	0.31	24.14	1 32 38.12	6.46	13 44 11.20	46.755	.770		14.4	52 44 10.9	23.6
26	B. D. +51° 357	9	33 44.47	−0.31	−24.14	1 33 20.02	−6.38	12 46 10.88	46.100	.150		13.3	+51 45 56.4	−23.6
27	B. D. +54° 383	9	43 10.85	−0.32	−24.15	1 42 46.38	−6.71	15 44 10.15	50.705	.740	C	16.5	+54 39 1.1	−22.2
28	B. D. +54° 388	9	44 28.82	0.32	24.15	1 44 4.35	6.73	15 44 10.22	44.890	.990		16.6	54 43 36.2	22.0
29	B. D. +54° 396	9	45 56.20	0.32	24.15	1 45 31.73	6.73	15 44 10.28	42.160	.260	B	16.5	54 39 30.7	21.8
30	B. D. +54° 424	9	51 44.19	0.32	24.15	1 51 19.72	6.80	15 54 9.10	43.830	.880		16.8	54 53 14.5	21.1
31	B. D. +54° 444	9	56 58.08	0.32	24.16	1 56 33.60	6.82	15 44 9.98	50.330	.360		16.6	54 45 20.4	20.4
32	B. D. +54° 448	9	57 37.57	−0.32	−24.16	1 57 13.09	−6.81	15 44 10.00	49.680	.735	C	16.5	+54 38 41.3	−20.4
33	B. D. +54° 470	9	3 59.25	−0.32	−24.16	2 3 34.77	−6.87	15 54 9.48	41.995	.095	B	16.7	+54 49 26.9	−19.5
34	B. D. +54° 494	9	8 13.49	0.32	24.16	2 7 49.01	6.90	15 54 9.35	47.710	.750	B	16.7	54 51 15.7	19.0
35	B. D. +54° 525	9	14 35.47	0.32	24.17	2 14 10.98	6.94	15 54 9.62	46.090	.180	A	16.9	54 57 13.5	18.1
36	B. D. +54° 535	9	17 25.66	0.32	24.17	2 17 1.17	6.95	15 54 9.58	48.865	.940		16.8	54 54 51.6	17.8
37	B. D. +54° 539	9	18 46.53	0.32	24.17	2 18 22.04	6.95	15 54 9.35	48.665	.730	C	16.7	54 48 21.4	17.6
38	B. D. +53° 532	9	23 36.56	−0.31	−24.17	2 23 12.08	−6.82	14 30 9.48	49.625	.660	C	15.2	+53 24 38.0	−17.1
39	B. D. +53° 540	9	26 20.51	−0.31	−24.17	2 25 56.03	−6.85	14 30 9.48	43.515	.600	A	15.3	+53 32 22.2	−16.8
40	B. D. +53° 546	9	29 3.22	0.31	24.18	2 28 38.73	6.83	14 16 9.50	43.890	.960		15.0	53 15 14.1	16.4
41	B. D. +50° 599	9	34 5.43	0.30	24.18	2 33 40.95	6.65	12 12 9.02	46.190	.250		12.8	51 11 55.5	16.0
42	B. D. +52° 616	9	36 27.89	0.31	24.18	2 36 3.40	6.84	14 6 8.98	47.005	.040		14.8	53 6 13.6	15.4
43	B. D. +48° 746	9	37 53.01	0.30	24.18	2 37 28.53	−6.46	9 54 8.72	49.835	.890	C	10.3	48 48 37.2	−15.9
44	Eros............	9	38 39.86	−0.30	−24.18	2 38 15.38	....	11 16 8.90	47.470	.595		11.8	+50 16 19.4	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
15 2 23	29.83	57.2	56.8	5, 8, 25, 31, 42, 43.	Bisections at I, III.	14	321 5 42.5
2 47	29.82	56.8	56.3	6, 12.	Bisections at V, VII.	15	42.7
3 26	29.81	56.0	55.0	10.	Bisections at II, III.	16	43.2
16 0 41	29.92	50.2	47.8	11.	Bisection at V.	17	44.2
1 20	29.93	50.0	47.0	14, 15, 16, 17, 18, 19, 20.	Bisections at I, II, VI, VII.	18	41.3
1 50	29.93	48.2	45.8			19	42.4
2 20	29.94	47.4	45.5	Note. Oct. 16. Seeing good.		20	41.4

Adopted Equator Point.... 1–17 321° 5′ 43″.08

18–44 { $1^{h}.090$ 41 .70
3 .165 42 .60

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+48° 752	9	40 6.36	-0.30	−24.18	2 39 41.88	−6.48	9 54 8.58	44.675	.710	A	10.4	+48 56 38.0	−15.6
2	B. D.+48° 760	9	41 56.22	0.30	24.18	2 41 31.74	6.47	9 54 8.58	49.140	.160	C	10.3	48 48 23.4	15.4
3	B. D.+48° 762	9	42 32.17	0.30	24.18	2 42 7.69	6.47	9 54 8.42	42.515	.560	C	10.2	48 46 15.4	15.3
4	B. D.+48° 763	9	42 58.40	0.30	24.18	2 42 33.92	6.48	9 54 8.20	44.590	.695		10.3	48 53 20.1	15.2
5	B. D.+48° 770	9	44 50.52	-0.30	−24.19	2 44 26.03	−6.49	9 54 8.42	44.010	.080	A	10.4	+48 56 25.4	−15.0
6	*γ* Persei..........	11	58 4.42	−0.31	**−24.18**	2 57	....	14 8 10.08	43.395 .410	.595 .640		14.9	+53 7	....
7	*β* Persei..........	11	2 10.03	0.28	**24.25**	3 1	....	1 34 9.48	48.355 .420	.610 .645		1.7	40 34	....
8	*α* Persei..........	11	17 41.84	0.30	**24.14**	3 17	....	10 30 9.12	48.045 .100	.235 .265		11.0	49 30	....
9	2 H. Camelop......	11	21 30.42	−0.34	**−24.24**	3 21	....	20 36 10.70	44.690 .730	.930 .965		22.2	+59 35	....

1900 OCTOBER 19. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red to 1900.0
10	*o* Cassiopeiæ......	11	39 40.44	−0.33	**−25.40**	0 39	....	8 44 9.98	48.850 .870	.980 .030		9.1	+47 44	....
11	*γ* Cassiopeiæ......	10	51 12.68	0.38	**25.38**	0 50	....	21 10 10.25	48.950 .990	.140 .190		22.9	60 10	....
12	*ξ* Andromedæ.....	11	16 58.58	0.32	**25.42**	1 16	....	6 0 8.90	49.060 .065	.210 .265		6.3	45 0	....
13	*δ* Cassiopeiæ......	11	19 49.10	−0.38	**−25.39**	1 19	....	20 44 9.62	43.895 .935	.020 .075		22.4	+59 43	....
14	B. D.+49° 401	9	25 9.75	−0.34	−25.40	1 24 44.01	−6.22	11 10 8.28	45.075	.090		11.7	+50 9 32.3	−25.5
15	B. D.+49° 400	9	25 10.35	0.34	25.40	1 24 44.61	6.22	11 10 8.08	45.320	.450	B	11.7	50 6 22.0	25.5
16	B. D.+45° 379	9	29 4.94	0.32	25.40	1 28 39.22	5.97	7 0 9.48	40.275	.335	A	7.4	46 1 11.4	25.4
17	B. D.+45° 392	9	31 45.40	0.32	25.40	1 31 19.68	5.99	7 0 9.42	48.550	.640	B	7.3	45 57 22.3	25.1
18	B. D.+45° 398	9	32 54.02	0.32	25.40	1 32 28.30	5.99	7 0 9.58	42.815	.955	B	7.3	45 55 33.0	25.0
19	B. D.+45° 416	9	35 54.50	−0.32	−25.40	1 35 28.78	-6.01	7 0 10.10	40.485	.600	B	7.2	+45 54 48.5	−24.6
20	B. D.+54° 368	9	38 19.46	−0.35	−25.40	1 37 53.71	−6.68	15 22 9.28	40.425	.530	A	16.3	+54 23 23.4	−23.6
21	B. D.+54° 393	9	45 26.02	0.35	25.40	1 45 0.27	6.74	15 22 8.75	49.000	.080	A	16.4	54 26 7.2	22.8
22	B. D.+54° 413	9	48 45.71	0.35	25.40	1 48 19.96	6.75	15 22 8.85	43.120	.240	C	16.2	54 14 34.0	22.4
23	B. D.+54° 431	9	53 28.85	0.35	25.40	1 53 3.10	6.79	15 22 8.50	41.670	.795		16.3	54 20 32.0	21.8
24	B. D.+38° 392	9	55 18.17	0.31	25.40	1 54 52.46	5.73	0 8 9.45	49.780	.880		0.2	39 8 52.1	22.9
25	B. D.+53° 440	9	57 17.53	−0.35	−25.40	1 56 51.78	−6.80	15 18 9.22	40.880	.010	B	16.2	+54 13 4.3	−21.3
26	B. D.+54° 452	9	58 30.54	−0.35	−25.40	1 58 4.79	−6.82	15 18 8.82	42.830	.880		16.2	+54 16 53.6	−21.1
27	B. D.+54° 457	9	59 40.98	0.35	25.40	1 59 15.23	6.85	15 28	......	....		....	54 27	....
28	B. D.+53° 453	9	2 9.10	0.35	25.40	2 1 43.35	6.83	15 4 7.38	48.750	.875	A	16.1	54 7 59.2	20.7
29	B. D.+53° 470	9	5 32.25	0.35	25.40	2 5 6.50	6.85	15 4 7.40	49.870	.930		16.0	54 5 7.1	20.2
30	B. D.+53° 486	9	8 37.53	0.35	25.40	2 8 11.78	6.86	15 4 7.30	46.985	.035		16.0	54 4 11.6	19.8
31	B. D.+53° 494	9	11 39.58	−0.35	−25.40	2 11 13.83	−6.88	15 4 7.28	45.085	.230	B	16.0	+54 0 23.0	−19.4
32	B. D.+53° 507	9	14 52.81	−0.35	−25.40	2 14 27.06	−6.90	15 4 7.40	44.450	.560		16.0	+54 3 23.7	−19.0
33	B. D.+53° 541	9	26 28.52	0.35	25.40	2 26 2.77	6.97	15 4 7.08	43.850	.915	A	16.1	54 6 26.3	17.4
34	B. D.+51° 598	9	29 48.11	0.34	25.40	2 29 22.37	6.77	13 4 9.52	44.095	.190		13.8	52 3 16.6	17.2
35	Eros............	11	35 36.47	0.34	25.40	2 35 10.73	....	12 10 9.50	44.730 .740	.910 .975		12.9	51 9 28.5	....
36	B. D.+51° 620	9	37 10.63	−0.34	−25.40	2 36 44.89	-6.80	13 0 9.32	45.090	.150		13.8	+51 59 33.4	−16.3
37	B. D.+48° 750	..	.. ..	....	.....	2 39	....	9 32 10.25	47.870	.970		10.0	+48 32 24.3	−16.4
38	B. D.+43° 576	10	41 30.75	−0.32	−25.40	2 41 5.03	-6.16	4 52 10.32	45.025	.075		5.1	43 51 26.2	16.8
39	B. D.+47° 702	9	42 51.38	0.33	25.40	2 42 25.65	6.40	8 8 9.52	51.420	.520	A	8.6	47 12 46.7	16.2
40	B. D.+46° 644	8	44 6.65	0.33	25.40	2 43 40.92	6.39	8 8 9.30	42.270	.340	C	8.4	47 0 9.6	16.0
41	B. D.+47° 714	9	45 12.08	0.33	25.40	2 44 46.35	6.48	9 6 8.90	46.060	.115		9.6	48 5 49.2	15.7
42	B. D.+47° 721	9	46 23.04	-0.33	−25.40	2 45 57.31	−6.48	9 6 8 58	40.485	.630	B	9.5	+48 0 47.7	−15.6

Time.		Barom.	Att. Ther.	Ex. Ther.
d	h m	in.	°	°
16	2 50	29.95	46.7	44.8
	3 25	29.97	45.8	43.7
19	0 42	30.00	46.0	(45.0)
	1 20	30.00	45.2	44.1
	1 50	30.01	44.2	42.9
	2 20	30.01	43.8	42.3
	2 50	30.02	45.2	41.7

Telescope micrometer bisections are made at III and V, except as noted below.

2.	Bisections at II, III.
3, 40.	Bisections at IV, V.
4, 15, 28, 36, 37, 42.	Bisections at V, VII.
6, 7, 8, 9, 10, 11, 12, 13, 35.	Bisections at I, II, VI, VII.
14.	Bisections at I, III.

Note.
Oct. 19. Seeing very good.

No.	Eq. Points.
	° ′ ″
6	321 5 42.0
7	42.8
8	43.1
9	42.5
10	42.8
11	43.3
12	43.3
13	42.3

Adopted Equator Point.... 1–9 { 1h.090 321° 5′ 41″.70
3.165 42.60
10–42 42.82

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	γ Persei..........	11	58 5.76	0.35	**-25.41**	2 57	....	14 8 9.20	43.525 .545	.685 .730		15.0	+53 7	....
2	β Persei..........	10	2 11.26	0.31	**25.39**	3 1	....	1 34 7.50	48.	.680 .740		1.7	40 34	....
3	α Persei..........	11	17 43.21	0.34	**25.39**	3 17	....	10 30 7.88	48.160 .190	.280 .355		11.1	49 30	....
4	2 H. Camelop......	11	21 31.74	-0.38	**-25.42**	3 21	....	20 36 9.75	44.825 .840	.980 .070		22.4	+59 35	....

1900 OCTOBER 20. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red. to 1900.0
5	o Cassiopeiæ......	11	39 40.47	-0.23	**-25.58**	0 39	....	8 44 8.28	48.930 .945	.075 .130		9.1	+47 44	....
6	γ Cassiopeiæ......	11	51 12.70	0.28	**25.50**	0 50	....	21 10 11.90	48.890 .905	.035 .075		22.9	60 10	....
7	ξ Andromedæ.....	11	16 58.68	0.23	**25.61**	1 16	....	6 0 8.70	49.080 .110	.285 .325		6.3	45 0	....
8	δ Cassiopeiæ......	11	19 49.20	-0.27	**-25.59**	1 19	....	20 44 9.70	43.870 .890	.050 .120		22.4	+59 43	....
9	B. D. +49° 403	9	25 24.25	-0.24	-25.56	1 24 58.45	-6.21	10 56 8.20	44.195	.260		11.5	+49 55 15.4	-25.8
10	B. D. +49° 414	9	28 51.65	0.24	25.56	1 28 25.85	6.25	11 10 8.70	39.930	.000	C	11.6	50 1 28.3	25.4
11	B. D. +49° 416	9	30 37.74	0.24	25.56	1 30 11.94	6.28	11 10 8.92	45.170	.235	A	11.8	50 12 49.8	25.2
12	B. D. +49° 422	9	32 14.20	0.24	25.55	1 31 48.41	6.28	11 10 8.55	44.750	.890	B	11.7	50 6 14.2	25.0
13	B. D. +52° 399	9	33 45.66	0.25	25.55	1 33 19.86	6.48	13 24 9.40	49.050	.095		14.2	52 24 52.2	24.6
14	B. D. +52° 420	9	37 49.50	-0.25	-25.55	1 37 23.70	-6.50	13 24 9.60	44.210	.275		14.1	+52 23 19.6	-24.1
15	B. D. +54° 408	9	47 43.65	-0.26	-25.55	1 47 17.84	-6.84	16 6 9.38	48.250	.325		17.1	+55 6 40.0	-22.7
16	B. D. +54° 415	9	49 41.03	0.26	25.55	1 49 15.22	6.85	16 6 9.18	44.840	.845		17.1	55 5 34.5	22.4
17	B. D. +54° 417	8	50 4.93	0.26	25.55	1 49 39.12	6.86	16 6 9.15	(49)555	.670	A	17.2	55 10 18.1	22.4
18	B. D. +54° 429	9	52 42.82	0.26	25.55	1 52 17.01	6.88	16 6 9.20	46.370	.435		17.1	55 6 3.6	22.1
19	B. D. +54° 453	9	58 50.65	0.26	25.55	1 58 24.84	6.93	16 6 9.02	45.320	.370	A	17.2	55 8 58.1	21.3
20	B. D. +54° 469	9	3 41.92	-0.25	-25.55	2 3 16.12	-6.94	16 6 9.18	41.130	.200	B	17.1	+55 1 10.1	-20.7
21	B. D. +54° 483	9	6 44.18	-0.25	-25.55	2 6 18.38	-6.93	15 34 8.80	51.110	.200	A	16.6	+54 38 48.7	-20.3
22	B. D. +54° 497	9	8 49.94	0.25	25.55	2 8 24.14	6.94	15 34 8.38	47.300	.360	A	16.6	54 37 34.9	20.0
23	B. D. +54° 530	9	16 16.86	0.25	25.55	2 15 51.06	6.98	15 34 8.72	47.620	.735	A	16.6	54 37 41.9	19.0
24	B. D. +54° 554	9	22 19.56	0.25	25.55	2 21 53.76	7.01	15 32 9.82	45.860	.925		16.5	54 31 53.9	18.2
25	B. D. +54° 565	9	25 5.46	0.25	25.55	2 24 39.66	7.01	15 32 9.45	41.825	.900	B	16.4	54 27 23.0	17.8
26	B. D. +50° 589	9	31 55.62	-0.24	-25.55	2 31 29.83	-6.65	11 26 8.15	47.500	.525		12.0	+50 26 19.7	-17.4
27	B. D. +50° 595	9	32 57.40	-0.24	-25.55	2 32 31.61	-6.65	11 26 7.95	42.070	.125	B	12.0	+50 21 21.1	-17.3
28	Eros............	9	34 25.75	0.24	25.55	2 33 59.96	....	12 26 9.02	46.865	.905		13.1	51 26 8.8	....
29	B. D. +51° 616	9	35 54.23	0.25	25.55	2 35 28.43	6.81	13 0 8.42	48.370	.445		13.7	52 0 38.0	16.7
30	B. D. +49° 753	9	37 20.17	0.24	25.55	2 36 54.38	6.65	11 16 8.00	49.815	.885	C	11.8	50 10 37.3	16.7
31	B. D. +50° 620	9	38 37.31	-0.24	-25.55	2 38 11.52	-6.67	11 16 7.92	44.230	.300	A	11.9	+50 18 31.0	-16.5
32	B. D. +50° 627	9	40 1.81	-0.24	-25.55	2 39 36.02	-6.66	11 16 7.92	44.205	.295	B	11.8	+50 12 2.7	-16.3
33	B. D. +50° 636	9	42 8.13	0.24	25.55	2 41 42.34	6.69	11 30 7.75	43.425	.495		12.1	50 29 0.8	16.0
34	B. D. +48° 764	9	43 15.60	0.24	25.55	2 42 49.81	6.52	9 28 6.88	47.010	.055		10.0	48 28 6.3	16.2
35	B. D. +40° 612	9	44 37.41	0.22	25.55	2 44 11.64	6.00	1 54 8.15	44.775	.790		2.0	40 53 16.5	17.0
36	B. D. +48° 777	9	45 52.32	0.24	-25.55	2 45 26.53	-6.53	9 28 8.48	48.225	.275		10.0	+48 28 31.3	-15.8
37	γ Persei..........	11	58 5.82	-0.25	**-25.54**	2 57	....	14 8 9.80	43.305 .320	.640 .710		15.0	+53 7	....
38	β Persei..........	11	2 11.40	0.32	**25.50**	3 1	....	1 34 8.18	48.285 .300	.690 .710		1.7	40 34	....
39	α Persei..........	11	17 43.26	0.24	**25.52**	3 17	....	10 30 9.02	48.095 .110	.225 .270		11.1	49 30	....
40	2 H. Camelop......	11	21 31.86	0.27	**-25.62**	3 21	....	20 36 9.12	44.810 .810	.010 .075		22.3	+59 35	....

Time.			Barom.	Att. Ther.	Ex. Ther.
d	h	m	in.	°	°
19	3	26	30.02	42.2	40.8
20	0	41	30.075	47.0	46.0
	1	20	30.07	46.2	45.2
	1	53	30.07	45.7	44.2
	2	23	30.07	45.8	44.0
	2	53	30.07	45.5	43.8
	3	27	30.07	45.1	44.0

Telescope micrometer bisections are made at III and V, except as noted below.

1, 3, 4, 5, 6, 7, 8, 37, 38, 39, 40.	Bisections at I, II, VI, VII.
2.	Bisections at VI, VII.
16, 26.	Bisections at I, III.
17.	Bisections at V, VII.
27.	Bisections at III, IV.

Note.
Oct. 20. Good seeing. Stars a trifle unsteady.

Adopted Equator Point.... 5-40 321° 5′ 42″.09

No.	Eq. Points.
	° ′ ″
1	321 5 42.6
2	42.5
3	43.0
4	42.8
5	42.4
6	42.9
7	43.9
8	42.1
9	40.5
10	40.5
11	42.6
12	41.8

1900 OCTOBER 21. CLAMP WEST.

KING, OBSERVER. BROWN, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*o* Cassiopeiæ......	11	39 40.70	−0.30	**−25.69**	0 39	....	8 44 8.98	48.860 .880	.005 .065		9.0	+47 44	....
2	*γ* Cassiopeiæ......	11	51 12.98	0.36	**25.68**	0 50	....	21 10 9.35	48.990 49.000	.140 .190		22.4	60 11	....
3	*ξ* Andromedæ.....	11	16 58.83	0.29	**25.70**	1 16	....	6 0 8.35	49.045 .060	.190 .240		6.2	45 0	....
4	*δ* Cassiopeiæ......	11	19 49.38	−0.36	**−25.68**	1 19	....	20 44 16.95	43. ... .510	.630 .705		21.9	+59 43	....
5	B. D.+49° 399	9	24 32.64	−0.31	−25.69	1 24 6.64	−6.18	10 26 8.52	46.350	.360		10.7	+49 25 57.1	−26.1
6	B. D.+47° 434^1	9	25 23.70	0.30	25.69	1 24 57.71	6.08	8 54 7.95	48.230	.320		9.1	47 54 30.8	26.1
7	B. D.+47° 434^2	4	25 25.60	0.30	25.69	1 24 59.61	6.08	8 54 7.95	48.765	.835		9.1	47 54 39.2	26.1
8	B. D.+49° 412	9	28 21.43	0.31	25.69	1 27 55.43	6.22	10 38 8.55	44.905	.990		10.9	49 37 29.4	25.7
9	B. D.+49° 418	9	31 28.45	0.31	25.69	1 31 2.45	6.23	10 26 8.30	46.990	.060		10.7	49 26 8.7	25.4
10	B. D.+53° 355	9	33 37.57	−0.32	−25.69	1 33 11.56	−6.59	14 38 8.85	46.365	.375		15.2	+53 38 2.0	−24.8
11	B. D.+53° 363	9	34 23.98	−0.32	−25.69	1 33 57.97	−6.57	14 26 11.92	43.865	.950	B	14.9	+53 22 3.6	−24.7
12	B. D.+53° 375	9	37 58.23	0.32	25.69	1 37 32.22	6.61	14 26 12.05	49.575	.620		15.0	53 27 6.1	24.3
13	B. D.+52° 433	9	40 15.93	0.32	25.69	1 39 49.92	6.60	14 6 9.00	48.705	.795		14.6	53 6 46.4	24.0
14	B. D.+53° 386	9	41 47.27	0.32	25.69	1 41 21.26	6.65	14 28 9.10	44.545	.555	A	15.0	53 30 42.0	23.8
15	B. D.+53° 388	9	42 7.92	0.32	25.69	1 41 41.91	6.64	14 28 9.12	43.360	.500	B	14.9	53 23 49.7	23.8
16	B. D.+53° 395	8	43 43.61	−0.32	−25.69	1 43 17.60	−6.65	14 22 9.20	46.880	.035	A	14.9	+53 25 25.4	−23.6
17	B. D.+53° 398	5	44 33.13	−0.32	−25.69	1 44 7.12	−6.77	14 22 9.25	45.130	.205	C	14.8	+53 15 10.7	−23.5
18	B. D.+53° 402	5	45 44.33	0.32	25.69	1 45 18.32	6.67	14 22 9.38	48. ...	.710		14.9	53 22 43.3	23.4
19	B. D.+53° 416	9	48 40.04	0.32	25.69	1 48 14.03	6.69	14 22 9.12	43.550	.575	A	14.9	53 24 22.9	23.0
20	B. D.+53° 437	9	55 55.35	0.32	25.69	1 55 29.34	6.76	14 32 9.00	47.480	.545		15.1	53 32 23.0	22.1
21	B. D.+53° 485	9	8 31.05	0.32	25.68	2 8 5.05	6.85	14 34 9.10	48.825	.930		15.1	53 34 49.2	21.4
22	B. D.+53° 501	9	12 39.32	−0.32	−25.68	2 12 13.32	−6.88	14 38 9.05	47.360	.475		15.2	+53 38 21.3	−19.9
23	B. D.+53° 525	9	20 3.22	−0.32	−25.68	2 19 37.22	−6.92	14 40 9.38	48.640	.775		15.2	+53 40 46.3	−18.9
24	Eros............	11	33 10.94	0.32	25.68	2 32 44.94	....	12 42 8.68	47.160 .195	.355 .410		13.1	51 42 15.4	....
25	B. D.+40° 567	7	34 44.16	0.28	25.68	2 34 18.20	5.99	1 58 7.68	42. ...	.980	B	2.0	40 53 27.6	18.4
26	B. D.+40° 570	9	36 10.32	0.28	25.68	2 35 44.36	6.00	1 58 7.85	47. ...	.975		2.1	40 58 16.8	18.2
27	B. D.+42° 614	9	37 38.28	0.29	25.68	2 37 12.31	6.13	4 8 8.00	43.960	.055		4.2	43 7 3.7	17.8
28	B. D.+44° 569	9	38 44.17	−0.29	−25.68	2 38 18.20	−6.28	6 8 7.90	45.630	.730	A	6.3	+45 10 52.5	−17.4
29	B. D.+44° 573	9	40 16.56	−0.29	−25.68	2 39 50.59	−6.27	6 8 7.98	48.365	.420	(C)	6.2	+45 2 3.8	−17.2
30	B. D.+46° 641	9	43 0.53	0.30	25.68	2 42 34.55	6.41	7 48 8.30	47.770	.850		8.0	46 48 20.7	16.6
31	B. D.+43° 583	9	43 58.43	0.29	25.68	2 43 32.46	6.17	4 22 8.60	43.480	.575	A	4.5	43 24 10.1	16.9
32	B. D.+43° 593	9	46 24.78	0.29	25.68	2 45 58.81	6.18	4 22 8.72	46.860	.985		4.5	43 22 0.6	16.6
33	B. D.+46° 652	9	47 48.93	0.30	25.68	2 47 22.95	6.42	7 52 8.45	46.140	.235	C	8.0	46 45 23.8	16.0
34	B. D.+46° 656	9	49 20.68	−0.30	−25.68	2 48 54.70	−6.44	7 52 8.45	43.180	.275	A	8.1	+46 54 7.8	−15.8
35	*γ* Persei..........	11	58 6.05	−0.32	**−25.68**	2 57	....	14 8 9.18	43.565 .575	.680 .745		14.6	+53 7	....
36	*β* Persei..........	11	2 11.58	0.28	**25.70**	3 1	....	1 34 7.92	48.450 .480	.635 .725		1.7	40 34	....
37	*α* Persei..........	11	17 43.50	0.31	**25.67**	3 17	....	10 30 8.62	48.150 .165	.280 .340		10.8	49 30	....
38	2 H. Camelop......	11	21 32.03	−0.35	**−25.68**	3 21	....	20 36 10.18	44.875 .890	.005 .055		21.8	+59 35	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
21 0 34	30.02	55.5	55.1
1 20	30.01	55.1	54.8
1 49	30.01	54.9	54.4
2 21	30.01	54.8	54.1
2 50	30.005	54.3	53.9
3 27	30.00	54.1	54.0

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 3, 24, 35, 36, 37, 38.	Bisections at I, II, VI, VII.
4.	Bisections at II, VI, VII.
5, 10, 19.	Bisections at I, III.
7, 15, 16, 17.	Bisections at V, VII.
14.	Bisections at II, III.
18.	Bisection at VII.
25, 26.	Bisection at V.

Note.

Oct. 21. Good seeing.

Adopted Equator Point.... 1–38 $\left\{\begin{array}{ll}1^{h}.030 & 321^\circ\ 5'\ 41''.48\\ 3\ .168 & 42\ .28\end{array}\right.$

No.	Eq Points.
	° ′ ″
1	321 5 41.4
2	41.5
3	42.0
4	41.0
35	42.1
36	41.5
37	42.8
38	42.7

1900 OCTOBER 24. CLAMP WEST.

KING, OBSERVER. BROWN, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*o* Cassiopeiæ......	11	39 40.25	−0.36	**−25.18**	0 39	....	8 44 8.78	48.985 49.005	.100 .160		8.8	+47 44	....
2	γ Cassiopeiæ......	11	51 12.48	0.45	**25.10**	0 50	....	21 10	......	....		...	60 11	....
3	ξ Andromedæ.....	11	16 58.32	0.35	**25.13**	1 16	....	6 0 7.68	49.160 .180	.315 .380		6.1	45 0	....
4	δ Cassiopeiæ......	11	19 48.88	−0.45	**−25.07**	1 19	....	20 44 9.20	44.040 .065	.155 .250		21.7	+59 43	....
5	B. D.+48° 453	9	25 26.03	−0.37	−25.11	1 25 0.55	−6.16	9 50 8.55	47.080	.180		10.0	+48 50 9.3	−26.8
6	B. D.+50° 298	9	26 44.46	0.38	25.11	1 26 18.97	6.30	11 42 8.48	48.180	.270	B	11.8	50 39 18.9	26.6
7	B. D.+48° 477	9	30 34.79	0.37	25.11	1 30 9.31	6.20	9 42 8.15	46.710	.730		9.8	48 42 1.7	26.2
8	B. D.+50° 314	9	31 16.43	0.38	25.11	1 30 50.94	6.35	11 46 6.98	44.780	.875		12.0	50 45 25.6	26.0
9	B. D.+44° 341	9	33 1.70	0.35	25.11	1 32 36.24	5.97	5 54 7.65	46.490	.540		6.0	44 53 52.6	26.1
10	B. D.+44° 347	9	35 19.37	−0.35	−25.11	1 34 53.91	−5.96	5 32 8.42	44.470	.520		5.6	+44 31 14.2	−25.9
11	B. D.+42° 352	9	36 35.07	−0.34	−25.11	1 36 9.62	−5.89	4 12 7.72	46.090	.180	B	4.2	+43 8 30.5	−25.8
12	B. D.+42° 356	9	37 48.72	0.34	25.11	1 37 23.27	5.90	4 12 7.70	48.380	.425		4.3	43 12 27.1	25.7
13	B. D.+42° 361	9	38 44.97	0.34	25.11	1 38 19.52	5.90	4 12 7.80	48.060	.105	B	4.2	43 9 7.9	25.6
14	B. D.+42° 370	9	40 48.10	0.34	25.11	1 40 22.65	5.92	4 12 7.80	49.140	.225		4.3	43 12 42.2	25.4
15	B. D.+43° 373	9	43 42.63	0.34	25.11	1 43 17.18	5.94	4 12 7.75	45.150	.245	A	4.3	43 14 40.5	25.0
16	B. D.+42° 388	9	45 34.48	−0.34	−25.11	1 45 9.03	−5.94	4 2 8.35	47.540	.655		4.1	+43 2 12.2	−24.8
17	B. D.+40° 423	8	55 40.39	−0.33	−25.11	1 55 14.95	−5.87	1 44 7.28	47.385	.480		1.8	+40 44 4.0	−23.8
18	B. D.+53° 460	9	3 57.31	0.40	25.10	2 3 31.81	6.84	14 22 8.65	48.250	.340		14.7	53 22 36.4	21.8
19	B. D.+52° 549	9	9 0.43	0.40	25.10	2 8 34.93	6.84	14 8 8.45	43.280	.390		14.5	53 7 0.9	21.2
20	B. D.+52° 563	9	12 38.44	0.40	25.10	2 12 12.94	6.87	14 8 8.48	43.870	.985		14.5	53 7 12.3	20.7
21	B. D.+52° 592	9	25 35.54	0.39	25.10	2 25 10.05	6.87	13 28 8.58	43.315	.425	B	13.7	52 23 47.8	19.0
22	B. D.+52° 595	8	27 49.19	−0.39	−25.10	2 27 23.70	−6.89	13 28 8.55	43.195	.210	B	13.7	+52 23 45.6	−18.7
23	Eros............	11	28 59.28	−0.39	−25.10	2 28 33.79	....	13 28 8.52	42.780 .800	.990 .080		13.8	+52 26 51.6	....
24	B. D.+52° 602	9	31 24.80	0.39	25.10	2 30 59.31	6.90	13 28 8.52	40.860	.950	B	13.7	52 23 0.4	−18.2
25	B. D.+52° 609	9	33 56.32	0.39	25.09	2 33 30.84	6.91	13 28 8.50	39.880	.985	B	13.7	52 22 41.8	17.9
26	B. D.+52° 617	8	36 52.16	0.39	25.09	2 36 26.68	6.92	13 28 8.52	41.855	.930	C	13.6	52 20 6.5	17.5
27	B. D.+43° 566	9	38 5.87	−0.35	−25.09	2 37 40.43	−6.24	4 52 7.98	38.725	.810	A	5.0	+43 52 38.1	−18.2
28	B. D.+47° 692	9	39 30.46	−0.36	−25.09	2 39 5.01	−6.52	8 46 8.15	39.140	.195		8.9	+47 43 35.1	−17.6
29	B. D.+47° 698	9	41 52.14	0.36	25.09	2 41 26.69	6.54	8 46 8.15	49.860	.885		8.9	47 47 1.3	17.3
30	B. D.+42° 633	9	42 44.36	0.34	25.09	2 42 18.93	6.15	3 22 7.05	48.475	.545	B	3.4	42 19 15.6	17.8
31	B. D.+42° 637	9	43 59.04	0.34	25.09	2 43 33.61	6.16	3 22 6.95	41.140	.150	A	3.5	42 23 22.2	17.6
32	B. D.+42° 638	9	44 37.73	0.34	25.09	2 44 12.30	6.19	3 54 8.05	47.950	985		4.0	42 54 18.9	17.5
33	B. D.+46° 648	9	45 31.67	−0.36	−25.09	2 45 6.22	−6.44	7 26 8.08	47.015	.100		7.5	+46 26 3.2	−17.0
34	γ Persei...........	11	58 5.60	−0.40	**−25.08**	2 57	....	14 8 8.95	43.640 .650	.810 .855		14.5	+53 7 ...	....
35	β Persei...........	11	2 11.14	0.33	**25.15**	3 1	....	1 34 7.62	48.560 .580	.710 .770		1.7	40 34 ...	....
36	α Persei...........	11	17 43.02	0.37	**25.05**	3 17	....	10 30 8.68	48.170 .180	.295 .375		10.7	49 30 ...	....
37	2 H. Camelop......	11	21 31.60	−0.45	**−25.06**	3 21	....	20 36 9.48	44.990 45.025	.115 .155		21.6	+59 35 ...	....

1900 OCTOBER 26. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
38	*o* Cassiopeiæ......	11	39 39.51	−0.36	**−24.45**	0 39	....	8 44 9.00	49.	.170 .220		8.9	+47 44	....
39	γ Cassiopeiæ......	11	51 11.92	−0.42	**−24.58**	0 50	....	21 10 10.35	49.135 .135	.250 .305		22.3	+60 11	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
24 0 42	30.17	65.0	63.8	1, 3, 4, 23, 34, 35, 36, 37, 39.	Bisections at I, II, VI, VII.	1	321 5 42.5
1 20	30.165	64.0	63.0	7, 22, 29.	Bisections at I, III.	3	43.0
1 50	30.17	63.5	62.6	17.	Bisections at (V, VII).	4	42.4
2 20	30.175	62.9	62.1	30, 31.	Bisections at II, III.	34	42.9
2 50	30.18	62.1	61.6	33.	Bisections at V, VII.	35	42.3
3 27	30.185	61.8	60.8	38.	Bisections at VI, VII.	36	42.5
26 0 41	30.04	59.8	58.7	Notes.		37	43.2
				Oct. 24. Good seeing.		38	43.2
				26. Good seeing at first; thick fog at end.		39	43.5
					Adopted Equator Point.... 1–37 321° 5′ 42″.69		

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	ξ Andromedæ.....	11	16 57.78	-0.35	-**24.57**	1 16	....	6 0 8.18	49.250 .255	.395 .450		6.1	+45 0	....
2	δ Cassiopeiæ......	11	19 48.36	-0.42	-**24.58**	1 19	....	20 44 9.75	44.070 .065	.150 .210		21.8	+59 43	....
3	B. D.+48° 454	9	25 57.08	-0.36	-24.55	1 25 32.17	-6.16	9 30 8.68	42.530	.585	A	9.7	+48 31 55.1	-27.3
4	B. D.+48° 463	9	27 47.32	0.36	24.55	1 27 22.41	6.17	9 30 8.62	49.045	.125		9.7	48 30 45.4	27.0
5	B. D.+51° 331	8	28 30.05	0.37	24.55	1 28 5.13	6.38	12 20 9.22	45.540	.655		12.6	51 19 42.0	27.5
6	B. D.+51° 339	9	30 55.70	0.37	24.55	1 30 30.78	6.40	12 20 9.28	50.065	.060	C	12.5	51 14 42.3	26.6
7	B. D.+51° 344	9	31 40.87	0.38	24.55	1 31 15.94	6.48	13 8 10.78	45.400	.470		13.4	52 7 41.3	26.4
8	B. D.+51° 363	9	34 34.03	-0.37	-24.55	1 34 9.11	-6.44	12 22 8.58	46.205	.280		12.6	+51 21 53.8	-26.1
9	B. D.+54° 368	9	38 18.75	-0.39	-24.55	1 37 53.81	-6.74	15 24 8.52	44.530	.635		15.9	+54 23 25.2	-25.5
10	B. D.+54° 392	9	45 14.04	0.39	24.56	1 44 49.09	6.86	15 56 8.30	43.325	.410		16.4	54 55 2.2	24.6
11	B. D.+53° 419	9	48 57.53	0.38	24.56	1 48 32.59	6.77	14 40 8.75	43.155	.235	A	15.1	53 42 12.8	24.2
12	B. D.+53° 428	9	52 8.30	0.39	24.56	1 51 43.35	6.84	15 6 7.92	41.230	.310	A	15.6	54 7 35.5	23.8
13	B. D.+53° 439	9	56 10.15	0.39	24.56	1 55 45.20	6.86	15 6 8.00	49.780	.855	C	15.5	54 0 38.7	23.3
14	B. D.+53° 451	9	0 34.90	-0.38	-24.56	2 0 9.96	-6.88	14 50 7.88	47.000	.100		15.3	+53 50 11.3	-22.7
15	B. D.+53° 459	9	3 52.87	-0.38	-24.56	2 3 27.93	-6.91	14 50 7.88	42.015	.100	A	15.3	+53 51 50.3	-22.3
16	B. D.+53° 474	9	6 57.98	0.38	24.56	2 6 33.04	6 92	14 50 7.70	41.830	.965	B	15.2	53 45 19.1	21.9
17	B. D.+53° 497	9	12 6.80	0.38	24.56	2 11 41.86	6.96	14 48 8.80	40.415	.550	A	15.3	53 49 21.0	21.2
18	B. D.+53° 513	9	15 26.51	0.38	24.57	2 15 1.56	6.98	14 48 8.98	45.725	.800		15.2	53 47 47.6	20.8
19	B. D.+53° 519	9	17 52.17	0.38	24.57	2 17 27.22	-6.99	14 48 9.10	45.520	.655	B	15.2	53 44 31.2	-20.4
20	Eros...........	11	25 50.89	-0.38	-24.57	2 25 25.94	....	13 54 9.28	43.660 .680	.850 .970		14.3	+52 53 8.5	....
21	B. D.+53° 547	9	29 6.75	-0.38	-24.57	2 28 41.80	-7.08	14 52 10.15	49.475	.600		15.3	+53 53 1.3	-18.9
22	B. D.+52° 602	9	31 24.32	0.38	24.57	2 30 59.37	6.93	13 24 10.52	43.155	.200		13.7	52 22 58.0	18.7
23	B. D.+49° 741	9	34 49.86	0.36	24.57	2 34 24.93	6.69	10 40 9.32	41.675	.730	B	10.8	49 35 13.6	18.5
24	B. D.+49° 743	8	34 56.54	0.37	24.57	2 34 31.60	6.70	10 40 9.40	41.750	.735	A	10.9	49 41 39.5	18.5
25	B. D.+42° 610	9	37 5.81	-0.34	-24.57	2 36 40.90	-6.18	3 36 8.28	45.185	.240		3.7	+42 35 24.5	-18.9
26	B. D.+40° 577	7	37 52 01	-0.33	-24.57	2 37 27.11	6.08	2 2 9.08	45.350	.335	A	2.2	+41 4 41.1	-19.0
27	B. D.+40° 590	9	40 18.39	0.33	24.57	2 39 53.49	6.09	2 2 9.00	49.210	.235		2.1	41 2 40.9	18.6
28	B. D +45° 660	9	41 5.17	0.35	24.57	2 40 40.25	6.39	6 30 9.20	47.070	.135		6.6	45 30 4.9	18.1
29	B. D.+47° 700	9	42 15.31	0.36	24.57	2 41 50.38	6.59	9 2 9.18	48.145	.215		9.2	48 2 28.1	17.7
30	B. D.+45° 667	9	44 40.80	-0.35	-24.57	2 44 15.88	-6.42	6 40 8.30	46.245	.310		6.8	+45 39 48.4	-17.6
31	γ Persei	10	58 5.06	-0.38	-**24.52**	2 57	....	14 8 9.95	43.630 .665	.795 .890		14.5	+53 7	....
32	β Persei	11	2 10.64	0.33	**24.62**	3 1	....	1 34 8.12	48.665 .650	.830 .890		1.7	40 34	....
33	α Persei	11	17 42.67	0.36	**24.67**	3 17	....	10 30 9.40	48.225 .235	.385 .490		10.7	49 30	....
34	2 H. Camelop......	6	21 31.08	-0.42	-**24.51**	3 21	....	20 36 9.22	45.070 .095	.195 .255		21.6	+59 35	....

1900 OCTOBER 27. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

35	o Cassiopeiæ......	11	39 39.30	-0.42	-**24.18**	0 39	....	8 44 9.45	49.005 .040	.190 .200		8.8	+47 44	....
36	γ Cassiopeiæ......	11	51 11.63	0.52	**24.19**	0 50	....	21 10 10.40	49.170 .190	.375 .415		22.2	60 11	....
37	ξ Andromedæ.....	11	16 57.49	0.40	**24.22**	1 16	....	6 0 8.80	49.190 .210	.345 .410		6.1	45 0	....
38	δ Cassiopeiæ......	11	19 48.05	-0.51	-**24.18**	1 19	....	20 44 8.32	44.150 .160	.310 .365		21.7	+59 43	....
39	B. D.+48° 455	9	25 57.15	-0.42	-24.19	1 25 32.54	-6.14	9 16 8.22	49.070	.175		9.4	+48 16 45.5	-27.5
40	B. D.+48° 470	9	28 51.22	0.43	24.19	1 28 26.60	6.22	10 4 8.88	45.100	.140		10.2	49 3 31.1	27.1
41	B. D.+44° 329	9	29 50.93	0.40	24.19	1 29 26.34	5.93	5 26 7.90	44.830	.870		5.5	44 25 19.3	27.2
42	B. D.+47° 460	9	30 51.03	-0.42	-24.19	1 30 26.42	-6.18	9 14 8.00	44.200	.230		9.3	+48 13 11.0	-26.9

Time.			Barom.	Att. Ther.	Ex. Ther.
d	h	m	in.	°	°
26	1	20	30.025	59.8	58.4
	1	50	30.02	59.7	58.4
	2	20	30.005	59.0	58.0
	2	50	29.995	58.9	57.9
	3	26	29.99	59.0	58.2
27	0	38	29.92	60.8	60.0
	1	20	29.92	60.3	59.2

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 20, 31, 32, 33, 34, 35, 36, 37, 38.	Bisections at I, II, VI, VII.
6.	Bisections at II, III.
23, 40.	Bisections at I, III.
24.	Bisections at V, VII.
25, 26.	Bisections at IV, V.

Note.
Oct. 27. Good seeing at first; mist at end.

Adopted Equator Point.... 1-42 321° 5′ 43″.76

No.	Eq. Points.
	° ′ ″
1	321 5 44.5
2	42.5
31	43.5
32	44.5
33	44.3
34	44.1
35	43.3
36	44.7
37	44.0
38	43.0

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+41° 321	9	34 11.85	−0.39	−24.20	1 33 47.26	−5.84	3 14 7.22	48.015	.095		3.3	+42 14 17.9	−26.7
2	B. D.+42° 351	9	36 28.48	0.39	24.20	1 36 3.89	5.87	3 28 8.52	48.255	.245	C	3.4	42 21 57.9	26.5
3	B. D.+42° 354	9	36 46.43	0.39	24.20	1 36 21.84	5.88	3 28 9.40	47.500	.610	A	3.6	42 31 23.8	26.4
4	B. D.+42° 360	8	38 35.77	0.39	24.20	1 38 11.18	5.90	3 42 8.38	45.235	.250	A	3.8	42 44 40.4	26.2
5	B. D.+42° 373	9	41 55.94	0.39	24.20	1 41 31.35	5.91	3 42 8.28	46.080	.095	C	3.6	42 35 16.4	25.9
6	B. D.+42° 375	9	42 26.24	0.39	24.20	1 42 1.65	5.92	3 42 8.22	40.470	.560	A	3.8	42 43 9.6	25.8
7	B. D.+41° 352	9	43 25.86	0.39	−24.20	1 43 1.27	−5.90	3 14 8.62	44.000	.050		3.3	+42 13 0.4	−25.7
8	B. D.+42° 390	9	45 52.32	−0.39	−24.20	1 45 27.73	−5.92	3 14 8.80	44.740	.870	A	3.3	+42 16 31.9	−25.4
9	B. D.+41° 364	9	47 40.63	0.39	24.20	1 47 16.04	5.92	3 4 9.40	42.845	.980		3.1	42 2 41.3	25.2
10	B. D.+39° 431	9	49 7.93	0.38	24.20	1 48 43.35	5.83	1 10 10.25	47.840	.920		1.2	40 10 15.5	25.1
11	B. D.+38° 392	9	55 17.23	0.38	24.20	1 54 52.65	5.81	0 8 7.65	49.955	.020		0.2	39 8 53.4	24.5
12	B. D.+38° 391	9	55 18.85	0.38	24.20	1 54 54.27	5.81	0 8 7.75	46.570	.625		0.2	39 7 45.8	24.5
13	B. D.+53° 521	9	18 0.48	0.46	24.20	2 17 35.82	−6.96	14 20 8.00	44.990	.105		14.7	53 19 32.4	−20.7
14	Eros..............	11	24 10.94	−0.45	−24.20	2 23 46.29	....	14 6 9.58	43.730 .760	.900 .000		14.4	+53 5 10.0	....
15	B. D.+51° 594	9	28 11.18	−0.44	24.20	2 27 46.54	−6.85	12 36 8.38	44.910	.015	B	12.8	+51 32 16.1	18.0
16	B. D.+51° 599	9	30 27.32	0.44	24.20	2 30 2.68	6.86	12 36 8.10	43.430	.515	B	12.8	51 31 47.2	19.2
17	B. D.+51° 604	9	32 8.94	0.44	24.20	2 31 44.30	6.88	12 36 8.22	45.520	.615	A	12.9	51 38 55.5	18.9
18	B. D.+51° 618	9	36 10.37	0.44	24.20	2 35 45.73	6.89	12 36 8.25	44.175	.250	C	12.7	51 28 49.3	18.4
19	B. D.+51° 620	9	37 9.69	0.44	24.20	2 36 45.05	6.94	13 0 8.22	45.265	.320		13.3	51 59 35.9	18.2
20	B. D.+50° 617	8	37 55.49	−0.44	−24.20	2 37 30.85	−6.83	11 48 7.45	47.510	.620		12.0	+50 48 15.7	−18.2
21	B. D.+51° 626	9	40 24.88	−0.44	−24.20	2 40 0.24	−6.94	12 48 7.68	44.530	.550		13.0	+51 47 21.5	−17.8
22	B. D.+51° 628	9	40 37.93	0.44	24.20	2 40 13.29	6.93	12 48 7.42	44.150	.225	B	13.0	51 43 58.6	17.7
23	B. D.+49° 782	8	43 30.26	0.43	24.20	2 43 5.63	6.75	10 40 7.65	44.835	.905	B	10.8	49 36 11.6	17.6
24	B. D.+45° 665	9	44 31.43	0.40	24.20	2 44 6.83	6.41	6 32 7.08	47.240	.270	C	6.5	45 25 39.5	17.8
25	B D.+45° 669	9	45 26.67	0.41	24.20	2 45 2.06	6.43	6 32 7.05	45.310	.380	A	6.7	45 34 43.9	17.7
26	B. D.+45° 679	9	49 46.06	−0.40	−24.20	2 49 21.46	−6.43	6 32 6.95	49.250	.315	C	6.5	+45 26 18.4	−17.1
27	γ Persei............	11	58 4.78	−0.45	−**24.15**	2 57	....	14 8 9.72	43.670 .685	.805 .875		14.4	+53 7	....
28	β Persei............	11	2 10.39	0.38	**24.30**	3 1	....	1 34 7.85	48.610 .635	.795 .860		1.6	40 34	....
29	α Persei............	11	17 42.31	0.43	**24.22**	3 17	....	10 30 8.82	48.280 .295	.435 .495		10.7	49 30	....
30	2 H. Camelop.......	11	21 30.84	−0.51	−**24.15**	3 21	....	20 36 9.42	45.055 .065	.220 .305		21.6	+59 35	....

1900 OCTOBER 29. CLAMP WEST.

KING, OBSERVER. BOEGER, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	Inst. Cor.	Clock Cor.	Apparent R. A.	Red. to 1900.0	Circle Reading.	Micrometer Readings.			Refr.	Apparent Decl.	Red. to 1900.0
31	ο Cassiopeiæ.......	11	39 38.91	−0.26	−**23.96**	0 39	....	8 44 9.68	49.005 .020	.160 .185		8.9	+47 44	....
32	γ Cassiopeiæ.......	11	51 11.24	0.30	**24.04**	0 50	....	21 10 10.18	49.185 .200	.335 .435		22.3	60 11	....
33	ξ Andromedæ......	11	16 57.10	0.25	**23.97**	1 16	....	6 0 8.50	49.260 .300	.435 .500		6.1	45 0	....
34	δ Cassiopeiæ.......	11	19 47.63	−0.30	−**23.97**	1 19	....	20 44 8.80	44.120 .130	.240 .325		21.8	+59 43	....
35	B. D.+47° 434 [1]	9	25 22.07	−0.25	−23.97	1 24 57.85	−6.12	8 54 9.08	48.340	.365		9.1	+47 54 32.4	−28.0
36	B. D.+47° 434 [2]	9	25 23.97	0.25	23.97	1 24 59.75	6.12	8 54 8.95	48.870	.980		9.1	47 54 40.6	28.0
37	B. D.+47° 442	8	26 47.22	0.25	23.97	1 26 23.00	6.13	8 54 9.18	48.905	.005		9.1	47 54 41.4	27.9
38	B. D.+47° 450	9	28 35.65	−0.25	−23.97	1 28 11.43	−6.15	8 54 9.15	49.695	.785		9.1	+47 54 58.1	−27.7
39	B. D.+47° 463	9	31 10.66	0.26	−23.97	1 30 46.43	−6.16	8 54 9.10	50.360	.445	C	9.0	+47 48 44.7	−27.4
40	B. D.+44° 335	9	32 35.20	0.24	23.97	1 32 10.99	5.96	5 16 10.58	45.945	.985	A	5.4	44 18 58.2	27.3
41	B. D.+44° 346	9	35 15.43	0.24	23.97	1 34 51.22	5.97	5 16 10.72	49.720	.825		5.4	44 16 56.6	27.0
42	B. D.+43° 364	9	40 45.86	0.24	23.96	1 40 21.66	6.01	5 16 10.88	45.625	.730	C	5.2	44 9 12.1	26.4
43	B. D.+53° 398	9	44 31.50	0.27	−23.96	1 44 7.27	−6.71	14 22 9.62	45.200	.240	C	14.7	+53 15 12.2	−25.6

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
27 1 50	29.92	60.0	59.3
2 20	29.92	60.0	59.0
2 50	29.92	59.2	58.7
3 24	29.915	59.0	58.2
29 0 41	29.81	56.0	55.2
1 20	29.81	55.6	55.0
1 50	29.81	55.0	54.6

Telescope micrometer bisections are made at III and V, except as noted below.

2, 5, 11, 18, 21, 35, 43.	Bisections at I, III.
3, 7, 12, 20, 22, 36, 37.	Bisections at V, VII.
14, 27, 28, 29, 30, 31, 32, 33, 34.	Bisections at I, II, VI, VII.
24.	Bisections at IV, V.

Note.

Oct. 29. Very good seeing.

No.	Eq. Points.
	° ′ ″
27	321 5 43.3
28	43.3
29	44.3
30	44.2
31	42.8
32	44.0
33	44.8
34	42.2

Adopted Equator Point.... 1–30 321° 5′ 43″.76
31–43 43 .60

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT. R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+53° 402	9	45 42.63	−0.27	−23.96	1 45 18.40	−6.73	14 22 9.75	48.655	.700		14.8	+53 22 44.9	−25.4
2	B. D.+39° 421	8	46 55.45	0.24	23.96	1 46 31.25	5.82	1 10 8.60	47.330	.355	C	1.1	40 3 37.5	25.8
3	B. D.+40° 394	9	47 47.33	0.24	23.96	1 47 23.13	5.84	1 10 8.35	51.385	.440	A	1.3	40 14 36.4	25.7
4	B. D.+39° 434	9	49 22.62	0.24	23.96	1 48 58.42	5.84	1 10 8.55	46.835	.915	A	1.3	40 13 9.6	25.5
5	B. D.+39° 447	9	52 52.28	−0.24	23.96	1 52 28.08	−5.86	1 10 8.45	46.875	.955	C	1.1	+40 3 29.1	−25.1
6	B. D.+39° 448	9	54 6.26	0.24	−23.95	1 53 42.07	−5.86	1 10 8.35	41.930	.050	B	1.2	+40 5 7.7	−24.9
7	B. D.+39° 454	9	56 15.19	0.24	23.95	1 55 51.00	5.88	1 10 8.35	41.535	.595	A	1.3	40 11 27.5	24.7
8	B. D.+39° 468	9	1 0.38	0.24	23.95	2 0 36.19	5.90	1 8 10.12	45.980	.045		1.2	40 7 39.7	−24.1
9	Eros	11	20 40.95	−0.27	−23.94	2 20 16.74	. . . .	14 28 10.30	42.675 .700	.810 .910		14.9	+53 26 50.9	. . . .
10	B. D.+52° 587	9	23 23.70	−0.27	−23.94	2 22 59.49	−6.95	13 38 9.02	44.020	.070		14.0	+52 37 13.7	−20.6
11	B. D.+53° 539	9	26 1.25	0.28	23.94	2 25 37.03	7.10	14 52 8.62	47.435	.520		15.3	53 52 20.4	20.1
12	B. D.+50° 587	9	28 54.86	0.26	23.93	2 28 30.67	6.81	11 46 9.55	44.550	.585		12.0	50 45 22.2	19.9
13	B. D.+49° 733	9	33 20.11	0.26	23.93	2 32 55.92	6.77	11 6 9.28	45.100	.200		11.3	50 5 32.4	19.4
14	B. D.+49° 752	9	37 16.92	0.26	23.93	2 36 52.73	6.78	10 58 7.90	46.190	.250		11.2	49 57 52.4	18.8
15	B. D.+46° 622	9	38 24.23	−0.25	−23.93	2 38 0.05	−6.49	7 26 7.98	45.275	.345		7.6	+46 25 30.5	−19.0
16	B. D.+46° 628	9	39 53.62	0.25	−23.93	2 39 29.44	−6.53	7 50 7.70	43.725	.775		8.0	+46 49 0.7	−18.8
17	B. D.+46° 638	10	42 21.31	0.25	23.93	2 41 57.13	6.52	7 34 7.72	44.060	.170		7.7	46 33 5.7	18.4
18	B. D.+45° 662	9	43 25.64	0.25	23.93	2 43 1.46	6.48	7 0 9.22	45.235	.320		7.1	45 59 29.0	18.4
19	B. D.+44° 591	9	45 37.24	0.25	23.92	2 45 13.07	6.39	5 36 8.02	46.440	.445	A	5.8	44 39 6.2	18.2
20	B. D.+44° 593	9	45 47.36	0.24	23.92	2 45 23.20	6.38	5 36 7.98	45.885	.000	C	5.6	44 29 13.3	18.2
21	B. D.+44° 598	9	49 59.44	−0.25	−23.92	2 49 35.27	−6.40	5 36 7.88	43.545	.620		5.7	+44 34 55.4	−17.6
22	γ Persei	11	58 4.40	−0.27	**−23.91**	2 57	. . . .	14 8 10 15	43.680 .700	.820 .865		14.5	+53 7	. . . .
23	β Persei	11	2 9.89	0.24	**23.91**	3 1	. . . .	1 34 8.18	48.625 .650	.810 .855		1.7	40 34	. . . .
24	α Persei	11	17 41.86	0.26	**23.90**	3 17	. . . .	10 30 9.32	48.305 .315	.415 .450		10.7	49 30	. . . .
25	2 H. Camelop.	11	21 30.45	−0.30	**−23.92**	3 21	. . . .	20 36 10.82	45.000 .020	.135 .190		21.7	+59 35	. . . .

KING, OBSERVER. 1900 NOVEMBER 4. CLAMP WEST. BROWN, ASSISTANT.

26	γ Andromedæ. . . .	11	58 14.26	−0.35	**−22.39**	1 57	. . . .	2 52 9.10	45.175 .200	.325 .370		3.0	+41 51	. . . .
27	B. D.+37° 488	9	3 23.04	0.33	22.38	2 3 0.33	5.85	359 4 8.88	46.390	.485		0.9	+38 3 44.6	−25.0
28	Eros	11	9 6.73	0.42	22.38	2 8 33.93	. . . .	15 12 9.45	43.105 .130	.265 .360		15.8	+54 10 59.3	. . . .
29	θ Persei.	11	37 51.61	0.38	**−22.44**	2 37	. . . .	9 48 8.55	48.750 .750	.960 .975		10.1	+48 48	. . . .
30	B. D.+41° 538	6	41 11.60	−0.34	−22.38	2 40 48.88	−6.25	2 46 8.88	45.955	.960		2.9	+41 45 40.2	−20.1
31	B. D.+49° 773	13	41 34.74	0.39	22.38	2 41 11.97	6.86	10 40 8.75	46.365	.415		11.0	49 39 53.7	19.6
32	B. D.+44° 591	9	45 35.98	0.36	22.38	2 45 13.24	−6.47	5 40 8.28	44.095	.160		5.8	44 39 7.3	−19.4
33	τ Persei.	11	47 39.80	−0.41	**−22.38**	2 47	. . . .	13 22 9.82	44.790 .795	.935 .020		13.8	+52 21	. . . .
34	γ Persei.	11	58 3.05	−0.42	**−22.30**	2 57	. . . .	14 8 9.25	43.785 .805	.925 .960		14.7	+53 7	. . . .

KING, OBSERVER. 1900 NOVEMBER 5. CLAMP WEST. BOEGER, ASSISTANT.

35	o Cassiopeiæ.	11	39 37.33	−0.27	**−22.41**	0 39	. . . .	8 44 9.28	49.110 .120	.215 .295		9.0	+47 44	. . . .
36	γ Cassiopeiæ.	11	51 9.54	−0.33	**−22.35**	0 50	. . . .	21 10 10.02	49. 245	.415 .470		22.4	+60 11	. . . .

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
29 2 15	29.81	54.8	54.3	1, 14, 30, 32.	Bisections at I, III.	22	321 5 43.4
2 51	29.81	54.7	54.0	2.	Bisections at IV, V.	23	43.6
3 27	29.805	54.2	53.3	9, 22, 23, 24, 25, 26, 28, 29, 33, 34, 35.	Bisections at I, II, VI, VII.	24	44.3
4 1 58	29.67	49.1	47.9	17, 18, 20, 31.	Bisections at V, VII.	25	43.7
2 33	29.67	48.3	47.0	19.	Bisections at II, III.	26	44.0
2 57	29.66	47.7	47.2	36.	Bisections at II, VI, VII.	29	44.3
5 0 41	29.78	52.3	51.5			33	42.8
				Note.		34	43.3
				Nov. 4. Seeing very poor; stars very unsteady and diffuse.		35	42.8
				Adopted Equator Point. . . . 1–34 321° 5′ 43″.60		36	43.2

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	ξ Andromedæ.....	11	16 55.52	−0.27	**−22.39**	1 16	....	6 0 7.52	49.350 .375	.505 .550		6.2	+45 0	....
2	δ Cassiopeiæ......	11	19 46.05	−0.32	**−22.38**	1 19	....	20 44 8.90	44.220 .230	.415 .470		21.9	+59 43	....
3	B. D.+47° 429	9	25 2.31	−0.27	−22.37	1 24 39.67	−6.09	8 24 8.72	44.610	.725		8.6	+47 23 20.1	−29.6
4	B. D.+50° 299	9	26 51.51	0.28	22.37	1 26 28.86	6.31	11 22 7.42	47.495	.520	B	11.6	50 19 4.3	29.4
5	B. D.+50° 301	9	27 28.92	0.28	22.37	1 27 6.27	6.32	11 22 7.65	48.245	.280		11.7	50 22 31.1	29.4
6	B. D.+44° 326	9	29 6.39	0.27	22.37	1 28 43.75	5.99	6 6 8.18	45.155	.260		6.2	45 5 27.6	29.1
7	B. D.+47° 462	9	31 1.65	0.27	22.37	1 30 39.01	6.16	8 34 8.95	47.320	.390		8.8	47 34 13.1	29.0
8	B. D.+45° 394	9	31 53.82	−0.27	−22.37	1 31 31.18	−6.03	6 32 8.95	42.345	.440	B	6.6	+45 27 21.6	−28.8
9	B. D.+45° 422	9	36 52.75	−0.27	−22.37	1 36 30.11	−6.08	6 32 8.90	48.780	.805		6.7	+45 32 38.5	−28.2
10	B. D.+45° 424	9	37 33.11	0.27	22.37	1 37 10.47	6.08	6 32 8.98	50.240	.270	C	6.6	45 26 39.6	28.2
11	B. D.+40° 364	9	41 5.68	0.26	22.37	1 40 43.05	5.86	2 4 7.95	45.690	.780		2.2	41 3 33.4	27.7
12	B. D.+40° 384	9	46 5.97	0.26	22.37	1 45 43.34	5.89	2 4 7.85	48.430	.550	C	2.1	40 58 0.1	27.1
13	B. D.+40° 390	9	47 17.66	0.26	22.37	1 46 55.03	5.90	2 4 8.20	44.400	.500	B	2.1	40 59 55.9	27.0
14	B. D.+40° 401	9	49 7.56	−0.26	−22.36	1 48 44.94	−5.92	2 10 8.25	45.260	.330		2.2	+41 9 25.3	−26.8
15	B. D.+39° 450	9	54 57.23	−0.25	−22.36	1 54 34.62	−5.88	0 34 7.05	42.765	.890	B	0.6	+39 29 22.1	−26.1
16	B. D.+39° 457	7	58 13.74	0.25	22.36	1 57 51.13	5.90	0 34 7.30	50.100	.225		0.7	39 34 56.2	25.7
17	B. D.+38° 402	9	59 11.86	0.25	22.36	1 58 49.25	5.88	359 58 8.25	46.320	.430		0.0	38 57 43.8	25.6
18	B. D.+38° 416	9	3 17.64	0.25	22.36	2 2 55.03	−5.90	359 58 8.10	40.090	.240	B	0.0	38 52 50.7	−25.1
19	Eros............	11	7 4.81	−0.30	−22.36	2 6 42.15	....	15 16 9.15	43.435 .455	.610 .655		15.8	+54 15 5.4	....
20	B. D.+37° 589	9	32 38.54	−0.25	−22.35	2 32 15.94	−5.98	358 32 6.80	45.780	.900		1.4	+37 31 30.7	−21.6
21	B. D.+37° 596	9	35 22.81	0.25	22.35	2 35 0.21	6.01	358 50 8.18	42.815	.850		1.1	37 48 35.8	21.3
22	B. D.+41° 517	9	36 16.13	0.26	22.35	2 35 53.52	6.24	2 46 8.42	44.600	.690		2.9	41 45 13.7	21.0
23	B. D.+42° 615	9	37 35.42	0.26	22.35	2 37 12.81	6.28	3 12 8.75	47.285	.385		3.3	42 12 6.0	20.8
24	B. D.+41° 530	9	39 41.08	0.26	22.35	2 39 18.47	6.28	3 12 8.60	40.290	.360	B	3.2	42 6 39.4	20.5
25	B. D.+43° 574	9	40 29.78	−0.26	−22.35	2 40 7.17	−6.37	4 18 8.18	46.180	.265	A	4.5	+43 21 0.1	−20.3
26	B. D.+43° 579	9	42 12.48	−0.26	−22.35	2 41 49.87	−6.36	4 18 8.30	40.105	.180	B	4.3	+43 12 35.5	−20.1
27	B. D.+43° 580	9	43 3.72	0.26	22.34	2 42 41.12	6.42	5 0 9.05	38.840	.950	B	5.1	43 54 13.2	19.9
28	B. D.+43° 586	9	44 35.82	0.26	22.34	2 44 13.22	6.43	5 0 9.00	47.570	.605	B	5.1	43 56 59.8	19.7
29	B. D.+47° 720	9	46 6.62	0.27	22.34	2 45 44.01	6.71	8 30 7.30	48.005	.120		8.8	47 30 24.0	19.3
30	B. D.+42° 650	9	48 55.82	−0.26	−22.34	2 48 33.22	−6.37	3 50 8.85	42.795	.925		3.9	+42 48 40.9	−19.2
31	γ Persei...........	11	58 2.90	−0.29	**−22.26**	2 57	....	14 8 9.82	43.775 .790	.935 .965		14.7	+53 7	....
32	β Persei...........	11	2 8.52	0.26	**22.42**	3 1	....	1 34 8.22	48.680 .705	.875 .915		1.7	40 34	....
33	α Persei...........	11	17 40.44	0.28	**22.32**	3 17	....	10 30 9.10	48.290 .320	.495 .535		10.8	49 30	....
34	2 H. Camelop......	11	21 29.06	−0.32	**−22.34**	3 21	....	20 36 8.90	45.165 .175	.355 .440		21.9	+59 35	....
	KING, OBSERVER.				1900 NOVEMBER 9.			CLAMP WEST.					BOEGER, ASSISTANT.	
35	ο Cassiopeiæ......	11	39 37.22	−0.22	**−22.38**	0 39	....	8 44 9.12	49.160 .165	.285 .350		9.2	+47 44	....
36	γ Cassiopeiæ......	11	51 9.50	0.33	**22.35**	0 50	....	21 10 10.70	49.250 .260	.345 .420		23.0	60 11	....
37	ξ Andromedæ.....	11	16 55.59	0.21	**22.50**	1 16	....	6 0 9.75	49.260 .265	.400 .455		6.3	45 0	....
38	δ Cassiopeiæ......	11	19 46.10	−0.32	**−22.45**	1 19	....	20 44 10.70	44.130 .140	.255 .350		22.5	+59 43	....
39	B. D.+46° 373	9	25 16.66	−0.22	−22.44	1 24 54.00	−6.07	8 4 9.18	45.350	.440		8.5	+47 3 35.0	−30.4
40	B. D.+45° 376	9	28 29.01	0.21	22.44	1 28 6.36	6.00	6 24 8.98	50.075	.125	A	6.8	45 28 18.1	30.0
41	B. D.+45° 383	9	29 44.44	0.21	22.44	1 29 21.79	6.01	6 24 8.95	42.825	.920	B	6.7	45 19 31.5	29.8
42	B. D.+46° 397	9	30 47.40	0.22	22.44	1 30 24.74	6.11	7 50 9.35	(44)780	.840		8.2	46 49 23.7	29.8
43	B. D.+45° 392	9	31 42.47	−0.22	−22.44	1 31 19.81	−6.06	6 58 8.82	45.040	.105		7.3	+45 57 27.3	−29.6

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.	No.	Eq. Points.
d h m	in.	°	°			° ′ ″
5 1 20	29.78	51.3	51.0	1, 2, 19, 31, 32, 33, 34, 35, 36, 37, 38. Bisections at I, II, VI, VII.	1	321 5 43.9
1 50	29.79	51.0	51.2	4, 7, 9, 21, 24. Bisections at I, III.	2	43.0
2 23	29.795	50.4	50.0		31	43.5
2 50	29.80	49.8	48.8		32	43.6
3 26	29.80	48.8	49.0	Notes.	33	43.5
9 0 41	29.76	39.0	38.3	Nov. 5. Very good seeing, though slightly unsteady at beginning.	34	44.0
				9. Conditions excellent. High wind.	35	43.1
					36	42.8
				Adopted Equator Point.... 1–34 321° 5′ 43″.44	37	43.5
				35–43 42 .75	38	42.1

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+44° 337	9	32 49.27	−0.21	−22.44	1 32 26.62	−6.02	6 10 9.68	46.115	.180		6.5	+45 9 48.0	−29.5
2	B. D.+43° 343	9	33 49.63	0.20	22.44	1 33 26.99	5.96	4 54 8.42	44.200	.255		5.2	43 53 8.6	29.3
3	B. D.+44° 352	9	36 19.52	0.21	22.44	1 35 56.87	6.05	6 4 9.22	49.060	.240		6.4	45 4 45.0	29.1
4	B. D.+44° 354	9	37 39.90	0.21	22.45	1 37 17.24	6.05	5 50 9.72	45.435	.500		6.1	44 49 34.6	28.9
5	B. D.+41° 347	9	42 13.73	0.19	22.45	1 41 51.09	5.92	2 56 8.98	46.585	.660		3.1	41 55 53.0	28.3
6	B. D.+40° 400	9	48 55.94	−0.19	−22.45	1 48 33.30	−5.90	1 24 8.30	48.115	.175		1.5	+40 24 19.9	−27.5
7	B. D.+40° 406	9	51 42.37	−0.18	−22.46	1 51 19.73	−5.91	1 24 8.15	44.630	.690	C	1.4	+40 16 46.9	−27.2
8	B. D.+40° 412	9	52 49.21	0.19	22.46	1 52 26.56	5.92	1 24 9.68	43.215	.280	A	1.6	40 26 2.2	27.1
9	B. D.+37° 452	9	54 46.93	0.18	22.46	1 54 24.29	5.82	359 8 9.52	44.665	.685		0.8	38 7 12.3	26.7
10	B. D.+37° 465	9	57 6.58	0.18	22.46	1 56 43.94	−5.84	359 8 9.80	45.110	.210	B	0.9	38 4 8.7	−26.5
11	Eros...........	11	58 52.72	−0.27	−22.46	1 58 29.99	....	15 22 11.18	44.615	.740		14.3	+54 21 28.7	....
12	B. D.+37° 488	9	3 22.92	−0.18	−22.46	2 3 0.28	−5.87	359 4 8.80	46.425	.480		0.9	+38 3 45.5	−25.8
13	B. D.+51° 587	9	25 27.30	0.25	22.48	2 25 4.57	7.00	12 52 10.02	46.840	.980		13.7	51 52 10.1	25.2
14	B. D.+39° 613	9	36 42.93	0.18	22.49	2 36 20.26	6.14	0 22 8.72	47.990	.080		0.5	39 22 17.2	21.6
15	B. D.+40° 581	9	38 21.66	0.19	22.49	2 37 58.98	6.20	1 18 9.68	49.090	.220	A	1.5	40 21 55.4	21.4
16	B. D.+39° 628	8	40 6.67	−0.18	−22.49	2 39 44.00	−6.20	1 18 10.05	47.730	.750	C	1.3	+40 11 48.6	−21.2
17	B. D.+41° 538	8	41 11.55	−0.19	−22.49	2 40 48.87	−6.30	2 46 10.20	45.830	.845		2.9	+41 45 40.0	−21.0
18	B. D.+41° 541	9	41 55.18	0.19	22.49	2 41 32.50	6.28	2 28 9.90	44.695	.750		2.6	41 27 17.0	20.9
19	B. D.+41° 543	9	42 41.45	0.20	22.49	2 42 18.76	6.33	3 0 11.18	47.300	.380		3.2	42 0 9.1	20.8
20	B. D.+41° 550	8	44 36.24	0.19	22.49	2 44 13.56	6.30	2 36 9.02	45.055	.130	B	2.7	41 32 10.2	20.5
21	B. D.+41° 556	9	46 23.71	−0.19	−22.50	2 46 1.02	−6.32	2 36 8.95	49.765	.870		2.8	+41 36 54.0	−20.3
22	γ Persei	11	58 3.15	−0.26	**−22.49**	2 57	....	14 8 10.10	43.730 .755	.880 .955		15.0	+53 7	....
23	β Persei	11	2 8.67	0.19	**22.59**	3 1	....	1 34 8.98	48.615 .640	.780 .830		1.7	40 34	....
24	α Persei	11	17 40.69	0.24	**22.55**	3 17	....	10 30 9.32	48.315 .320	.455 .555		11.1	49 30	....
25	2 H. Camelop......	11	21 29.22	-0.32	**−22.42**	3 21	....	20 36 9.90	45.080 .100	.260 .300		22.4	+59 35	....

1900 NOVEMBER 11. CLAMP WEST.

KING, OBSERVER. BROWN, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
26	2 Persei	11	46 17.23	−0.20	**−22.95**	1 45	....	11 18 9.82	47.645 .650	.795 .850		11.9	+50 18	....
27	B. D.+37° 468	9	57 35.16	0.13	22.94	1 57 12.09	−5.85	359 10 8.95	48.190	.275		0.8	38 10 19.5	−26.7
28	6 Persei	11	7 27.00	−0.21	**−22.92**	2 7	....	11 36 9.05	48.035 .045	.155 .235		12.3	+50 36	....
29	B. D.+40° 567	9	34 41.64	0.15	22.98	2 34 18.51	−6.23	1 58 9.08	43.175	.210	B	2.0	40 53 32.7	−22.2
30	B. D.+40° 570	9	36 7.67	0.15	22.98	2 35 44.54	−6.24	1 58 9.12	48.000	.035		2.1	40 58 19.5	−22.0
31	0 Persei	11	37 52.01	−0.20	**−22.95**	2 37	....	9 48 9.90	48.720 .725	.855 .940		10.4	+48 48	....
32	B. D.+48° 750	9	39 26.18	−0.19	−22.99	2 39 3.00	−6.82	9 32 9.38	48.210	.305		10.1	+48 32 29.6	−21.5
33	B. D.+44° 577	6	41 30.25	0.17	22.99	2 41 7.09	6.54	5 52 9.50	43.995	.020		6.2	44 51 6.9	21.2
34	B. D.+42° 638	9	44 35.70	−0.16	−23.00	2 44 12.54	−6.42	3 54 9.05	48.050	.110		4.1	+42 54 21.3	−24.0
35	τ Persei	11	47 40.40	−0.22	**−23.08**	2 47	....	13 22 10.00	44.820 .830	.030 .110		14.2	+52 21	....
36	γ Persei	11	58 3.63	−0.23	**−22.97**	2 57	....	14 8 9.68	43.845 .865	.915 .010		15.1	+53 7	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as stated below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
9 1 35	29.78	38.3	38.0	11.	Bisections at II, VI.	22	321 5 42.5
1 50	29.775	38.3	37.8	16, 17, 30.	Bisections at I, III.	23	42.1
2 20	29.80	37.6	37.3	22, 23, 24, 25, 26, 28, 31, 35, 36.	Bisections at I, II, VI, VII.	24	43.2
2 50	29.80	37.3	37.0	32.	Bisections at V, VII.	25	42.7
3 26	29.80	37.2	37.0	33.	Bisections at II, III.	26	43.2
11 1 43	29.84	40.2	39.9	34.	Bisections at IV, V.	29	42.8
2 25	29.82	39.1	37.9			31	43.5
3 0	29.82	38.5	36.9	Note. Nov. 11. Good seeing.		35	43.0
					Adopted Equator Point.... 1–25 321° 5′ 42″.75 26–36 43 .16	36	43.3

1900 NOVEMBER 12. CLAMP WEST.

KING, OBSERVER.

BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	ο Cassiopeiæ......	11	39 37.99	−0.20	−**23.20**	0 39	....	8 44 9.82	49.135	.310 .335		9.1	+47 44	....
2	γ Cassiopeiæ......	11	51 10.34	0.32	**23.24**	0 50	....	21 10 10.20	49.350 .395	.450 .530		22.9	60 11	....
3	ξ Andromedæ.....	11	16 56.25	0.18	**23.20**	1 16	....	6 0 9.20	49.345 .355	.520 .600		6.3	45 0	....
4	δ Cassiopeiæ......	11	19 46.78	−0.32	−**23.14**	1 19	....	20 44 9.45	44.300 .310	.445 .560		22.4	+59 43	....
5	B. D.+46° 370	9	24 35.48	−0.19	−23.20	1 24 12.09	−6.02	7 30 7.95	46.800	.850		7.8	+46 29 59.6	−31.0
6	B. D.+49° 414	9	28 49.29	0.22	23.20	1 28 25.87	6.30	11 2 8.90	45.090	.105		11.6	50 1 32.2	30.7
7	B. D.+46° 389	9	29 59.88	0.19	23.20	1 29 36.49	6.07	7 32 8.50	39.875	.900	C	7.7	46 23 21.8	30.4
8	B. D.+46° 393	12	30 28.71	0.19	23.20	1 30 5.32	6.08	7 32 8.62	51.460	.540	A	8.0	46 36 42.7	30.4
9	B. D.+46° 404	8	31 42.41	0.19	23.20	1 31 19.02	6.09	7 32 8.30	50.755	.830	C	7.8	46 26 48.3	30.2
10	B. D.+43° 337	8	33 9.04	−0.17	−23.20	1 32 45.67	−5.94	4 36 8.52	45.110	.115	A	4.9	+43 38 38.9	−29.9
11	B. D.+43° 341	9	33 39.52	−0.17	−23.20	1 33 16.15	−5.94	4 36 8.48	44.745	.860	(B)	4.8	+43 32 3.0	−29.8
12	B. D.+41° 329	9	36 45.90	0.16	23.20	1 36 22.54	5.85	2 26 9.15	46.755	.845		2.6	41 25 55.2	29.4
13	B. D.+41° 342	9	41 40.57	0.16	23.21	1 41 17.20	5.91	2 42 9.38	47.310	.425		2.9	41 42 6.6	28.9
14	B. D.+41° 353	9	43 43.58	0.16	23.21	1 43 20.21	5.91	2 28 9.58	42.985	.055	A	2.6	41 29 57.9	28.6
15	B. D.+41° 362	9	47 12.46	0.16	23.21	1 46 49.09	5.94	2 28 9.55	46.265	.400	C	2.5	41 21 20.6	28.2
16	B. D.+41° 374	8	50 57.71	−0.16	−23.21	1 50 34.34	−5.97	2 22 8.35	44.990	.060	A	2.6	+41 24 36.2	−27.8
17	B. D.+41° 377	8	51 38.87	−0.16	−23.21	1 51 15.50	−5.97	2 22 8.28	41.800	.835	B	2.4	+41 17 5.9	−27.7
18	Eros............	11	52 49.85	0.26	23.21	1 52 26.38	....	15 16 9.82	45.060	....		16.2	54 15 36.1	....
19	B. D.+40° 415	9	54 8.53	0.16	23.21	1 53 45.16	5.96	1 52 9.58	47.990	.065		2.0	40 52 18.6	27.4
20	B. D.+40° 421	9	55 10.53	0.16	23.21	1 54 47.16	5.97	1 52 9.68	50.230	.355		2.0	40 53 2.1	27.3
21	B. D.+39° 464	9	0 12.58	0.14	23.21	1 59 49.23	5.93	0 18 8.68	45.015	.080		0.4	39 17 18.9	26.6
22	B. D.+38° 408	9	0 51.91	−0.14	−23.21	2 0 28.56	−5.88	359 26 8.02	46.520	.605		0.5	+38 25 44.8	−26.5
23	B. D.+37° 486	9	2 56.26	−0.14	−23.21	2 2 32.91	−5.85	358 24 8.00	45.785	.890		1.6	+37 23 31.4	−26.2
24	B. D.+39° 609	7	36 7.38	0.15	23.22	2 35 44.01	6.20	1 6 8.58	44.135	.240		1.2	40 5 4.1	22.2
25	B. D.+42° 613	9	37 34.51	0.16	23.22	2 37 11.13	6.38	3 48 9.00	44.620	.665		4.0	42 47 16.0	22.0
26	B. D.+40° 582	9	38 25.76	0.15	23.22	2 38 2.39	6.24	1 42 9.20	44.885	.965		1.8	40 41 18.5	21.9
27	B. D.+40° 589	9	39 58.44	−0.15	−23.22	2 39 35.07	−6.24	1 30 8.90	46.195	.320		1.6	+40 29 43.5	−21.7
28	B. D.+42° 628	9	41 22.83	−0.17	−23.22	2 40 59.44	−6.41	4 0 9.22	44.780	.860		4.2	+42 59 18.9	−21.5
29	B. D.+40° 602	9	42 33.88	0.15	23.22	2 42 10.51	6.26	1 34 8.95	47.185	.240		1.7	40 34 2.0	21.3
30	B. D.+44° 582	9	43 34.66	0.18	23.22	2 43 11.26	6.57	6 0 8.88	45.780	.840		6.3	44 59 39.6	21.2
31	B. D.+40° 610	8	44 21.16	0.15	23.22	2 43 57.79	6.26	1 26 9.70	42.800	.900		1.5	40 24 37.3	21.1
32	B. D.+42° 643	9	46 35 95	−0.16	−23.22	2 46 12.57	−6.40	3 22 8.90	46.500	.595		3.5	+42 21 51.0	−20.8
33	γ Persei...........	11	58 3.85	−0.24	−**23.17**	2 57	....	14 8 9.90	43.850 .860	.995 .075		14.9	+53 7	....
34	β Persei...........	11	2 9.35	0.15	**23.27**	3 1	....	1 34 8.82	48.735 .745	.860 .940		1.7	40 34	....
35	α Persei...........	11	17 41.39	0.21	**23.23**	3 17	....	10 30 9.95	48.350 .360	.480 .535		11.0	49 30	....
36	2 H. Camelop......	11	21 30.11	−0.32	−**23.25**	3 21	....	20 36 10.08	45.160 .185	.320 .450		22.3	+59 35	....

1900 NOVEMBER 17. CLAMP EAST.

KING, OBSERVER.

BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
37	γ Cassiopeiæ......	11	51 12.84	−0.52	−**25.61**	0 50	....	338 42 11.00	41.675 .650	.530 .455		23.3	+60 11	....
38	ξ Andromedæ.....	11	16 58.78	−0.32	−**25.64**	1 16	....	353 50 10.35	48.070 .065	.930 .865		6.4	+45 0	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
12 0 41	29.62	40.6	40.4
1 23	29.62	39.2	38.2
1 56	29.61	38.7	38.2
2 18	29.60	38.5	38.0
2 48	29.595	38.0	38.0
3 26	29.58	37.5	36.9

Telescope micrometer bisections are made at III and V, except as noted below.

1.	Bisections at I, VI, VII.
2, 3, 4, 33, 34, 35, 36, 37, 38.	Bisections at I, II, VI, VII.
6, 7, 16, 24, 25.	Bisections at I, III.
8, 9, 11.	Bisections at VI, VII.
10.	Bisections at IV, V.
17.	Bisections at III, IV.
18.	Bisection at IV.
22, 31.	Bisections at V, VII.

Note.

Nov. 12. Stars somewhat unsteady and not well defined.

Adopted Equator Point.... 1–36 321° 5′ 43″.68

No.	Eq. Points.
	° ′ ″
1	321 5 43.1
2	43.7
3	44.5
4	43.6
33	43.7
34	43.5
35	43.5
36	43.8
37	38 56 43.0
38	43.8

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	δ Cassiopeiæ	11	19 49.26	−0.52	**−25.47**	1 19	....	339 8 10.90	46.780 .760	.635 .555		22.8	+59 43	....
2	B. D.+51° 317	9	24 58.47	−0.39	−25.58	1 24 32.50	−6.34	347 16 9.90	47.155	.145		13.5	+51 35 13.6	−32.3
3	B. D.+51° 323	9	26 18.88	0.40	25.58	1 25 52.90	6.38	346 54 10.20	45.220	.325		13.9	51 57 49.7	32.1
4	B. D.+52° 387	9	31 11.93	0.41	25.58	1 30 45.94	6.50	346 16 10.42	43.995	.890		14.6	52 36 15.7	31.6
5	B. D.+51° 344	9	31 42.03	0.40	25.58	1 31 16.05	6.47	346 48 10.35	42.895	.810	B	14.1	52 7 47.3	31.5
6	B. D.+51° 360	9	34 7.09	0.40	25.59	1 33 41.10	6.50	346 48 10.50	39.570	.540	B	14.1	52 8 53.3	31.3
7	B. D.+51° 364	9	34 42.96	0.40	25.59	1 34 16.97	−6.50	346 48 10.35	41.270	.145	A	14.0	+52 1 52.8	−31.2
8	B. D.+52° 406	12	35 55.94	−0.41	−25.59	1 35 29.94	−6.58	346 6 7.32	43.860	.790	C	14.9	+52 52 47.3	−31.1
9	B. D.+52° 424	9	38 31.10	0.41	25.59	1 38 5.10	6.60	346 6 7.15	48.385	.260	A	14.7	52 41 40.3	30.8
10	B. D.+52° 441	8	42 25.70	0.41	25.59	1 41 59.70	6.65	346 6 11.20	46.345	.335		14.8	52 45 29.1	30.3
11	B. D.+55° 440	9	49 46.86	0.44	25.59	1 49 20.83	6.99	343 32 8.50	42.735	.720		17.7	55 20 43.7	29.5
12	B. D.+55° 464	9	53 23.97	−0.44	−25.59	1 52 57.94	−7.04	343 32 10.00	39.730	.670	A	17.7	+55 18 25.8	−29.1
13	β Trianguli	11	4 7.05	−0.23	**−25.63**	2 3	....	4 20 9.25	46.100 .085	.950 .880		4.6	+34 31	....
14	γ Trianguli	11	11 53.62	0.22	**25.63**	2 11	....	5 28 9.20	45.445 .430	.290 .255		5.8	33 23	....
15	θ Persei...........	11	37 54.82	−0.36	**−25.56**	2 37	....	350 2 10.48	48.590 .595	.445 .375		10.5	+48 48	....

1900 NOVEMBER 21. CLAMP EAST.

KING, OBSERVER. BROWN, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
16	ο Cassiopeiæ	11	39 41.79	−0.46	**−26.85**	0 39	....	351 6 10.38	46.850 .840	.690 .655		8.8	+47 44	....
17	γ Cassiopeiæ	11	51 14.18	0.66	**26.88**	0 50	....	338 40 9.80	46.675 .635	.540 .440		22.0	60 11	....
18	ξ Andromedæ	10	17 0.08	0.43	**26.86**	1 16	....	353 50 7.38	46.	.725 .680		6.1	45 0	....
19	δ Cassiopeiæ	11	19 50.78	−0.65	**−26.90**	1 19	....	339 8 7.80	45.550 .550	.480 .390		21.6	+59 43	....
20	B. D.+50° 297	9	26 15.34	−0.50	−26.88	1 25 47.96	−6.28	347 54 9.05	50.390	.345		12.1	+50 55 47.0	−32.8
21	B. D.+50° 300	7	27 22.57	0.50	26.88	1 26 55.19	6.30	347 54 9.35	41.360	.315		12.1	50 58 37.6	32.7
22	B. D.+51° 338	9	29 56.42	0.51	26.88	1 29 29.03	6.38	347 12 9.40	44.480	.420		12.8	51 39 40.9	32.5
23	B. D.+52° 393	9	33 5.74	0.53	26.88	1 32 38.33	6.51	346 8 9.98	42.475	.410		14.0	52 44 20.0	32.2
24	B. D.+51° 357	7	33 47.76	0.51	26.88	1 33 20.37	−6.44	347 6 9.45	43.135	.055		13.0	51 46 5.2	−32.1
25	Eros...........	11	37 6.93	−0.53	−26.88	1 36 39.52	....	345 50 9.48	38.870 .855	.775 .735		14.3	+53 3 29.9	....
26	B. D.+54° 383	9	43 14.02	−0.56	−26.88	1 42 46.58	−6.82	344 12 8.95	46.345	.295		16.0	+54 39 8.7	−31.2
27	B. D.+54° 388	9	44 32.17	0.56	26.88	1 44 4.73	6.84	344 12 9.00	42.000	.920	B	16.1	54 43 45.4	31.0
28	B. D.+54° 396	9	45 59.48	0.56	26.88	1 45 32.04	6.86	344 12 9.10	44.700	.605		16.0	54 39 38.6	30.8
29	B. D.+54° 424	9	51 47.35	0.56	26.89	1 51 19.90	6.96	343 58 9.52	45.605	.540		16.3	54 53 22.7	30.1
30	B. D.+54° 444	9	57 1.51	0.56	26.89	1 56 34.06	7.01	344 10 9.05	42.865	.820	B	16.1	54 45 29.5	29.5
31	B. D.+54° 448	8	57 41.01	−0.56	−26.89	1 57 13.56	−7.01	344 10 9.10	43.415	.315	A	16.0	+54 38 50.4	−29.4
32	B. D.+54° 470	9	4 2.52	−0.56	−26.89	2 3 35.07	−7.11	344 0 9.50	41.060	.960	A	16.2	+54 49 35.4	−28.6
33	B. D.+54° 494	8	8 16.76	0.56	26.89	2 7 49.31	7.17	344 0 9.60	45.555	.395		16.2	54 51 24.4	28.0
34	B. D.+54° 525	7	14 38.86	0.56	26.89	2 14 11.41	7.25	344 0 9.60	46.855	.800	C	16.4	54 57 23.0	27.2
35	B. D.+54° 535	9	17 29.01	0.56	26.89	2 17 1.56	7.28	344 0 9.70	44.270	.225	B	16.3	54 55 1.0	26.8
36	B. D.+54° 539	9	18 49.96	−0.56	−26.89	2 18 22.51	−7.29	344 0 9.88	44.315	.190	A	16.2	+54 48 30.8	−26.6
37	θ Persei...........	11	37 56.27	−0.47	**−26.88**	2 37	....	350 2 7.70	47.425 .430	.290 .235		10.0	+48 48	....
38	η Persei...........	11	43 58.99	0.57	**26.85**	2 43	....	343 22 9.80	46.175 .155	.035 .935		17.0	55 29	....
39	τ Persei...........	11	47 44.66	−0.52	**−26.97**	2 47	....	346 30 9.42	44.920 .905	.780 .715		13.6	+52 21	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
17 0 48	30.12	39.2	38.3
1 15	30.12	39.0	38.0
1 53	30.12	38.2	37.4
2 22	30.12	38.3	37.7
2 38	30.11	38.3	37.7
21 0 42	29.80	61.9	61.1
1 22	29.82	60.0	60.0
1 50	29.83	59.7	59.2
2 21	29.83	58.8	58.5
2 49	29.84	58.0	57.2

Telescope micrometer bisections are made at III and V, except as noted below.

1, 13, 14, 15, 16, 17, 19, 25, 37, 38, 39.	Bisections at I, II, VI, VII.
5, 24, 28, 34, 36.	Bisections at V, VII.
6.	Bisections at II, III.
11.	Bisections at IV, V.
18, 21.	Bisections at VI, VII.
30.	Bisections at I, III.

Notes.

Nov. 17. Fair seeing at beginning, but later stopped by thin clouds.
21. Extremely bad seeing.

Adopted Equator Point.... 1–15 38° 56′ 44″.00
16–39 19 .71

No.	Eq. Points.
	° ′ ″
1	38 56 43.8
13	44.3
14	45.6
15	43.5
16	19.0
17	19.7
18	18.9
19	20.1
37	19.9
38	19.9
39	20.5

1900 NOVEMBER 22. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*o* Cassiopeiæ......	11	39 41.58	−0.47	**−26.64**	0 39	....	351 6 9.82	46.750 .760	.640 .560		8.9	+47 44	....
2	*γ* Cassiopeiæ......	11	51 13.95	0.65	**26.68**	0 50	....	338 40 10.02	46.560 .530	.395 .315		22.2	60 11	....
3	ξ Andromedæ.....	11	16 59.96	0.44	**26.73**	1 16	....	353 50 9.58	46.690 .680	.540 .450		6.1	45 0	....
4	*δ* Cassiopeiæ......	11	19 50.50	−0.65	**−26.63**	1 19	....	339 8 10.58	45.325 .300	.160 .085		21.7	+59 43	....
5	B. D.+49° 401	8	25 11.30	−0.50	−26.66	1 24 44.14	−6.20	348 46 9.65	41.940	.880	B	11.3	+50 9 40.1	−33.0
6	B. D.+45° 379	8	29 6.25	0.46	26.66	1 28 39.13	5.99	352 54 9.30	42. . . .	.685	B	7.1	46 1 19.5	32.2
7	B. D.+45° 392	9	31 46.96	0.46	26.66	1 31 19.84	6.02	352 54 9.12	44.730	.640		7.0	45 57 28.9	31.9
8	B. D.+45° 398	9	32 55.58	0.46	26.66	1 32 28.46	6.03	352 54 9.22	40.255	.240	A	7.0	45 55 39.1	31.8
9	B. D.+54° 368	9	38 20.87	0.57	26.65	1 37 53.65	6.72	344 28 10.65	44.980	.855		15.8	54 23 31.6	31.9
10	B. D.+54° 393	9	45 27.55	−0.57	−26.65	1 45 0.33	−6.82	344 28 10.75	46.470	.360	B	15.8	+54 26 15.9	−31.1
11	B. D.+53° 440	9	57 19.12	−0.57	−26.64	1 56 51.91	−6.96	344 38 10.40	45.950	.885		15.6	+54 13 12.5	−29.6
12	B. D.+54° 452	9	58 32.30	0.57	26.64	1 58 5.09	6.98	344 38 10.35	43.985	.855	B	15.6	54 17 4.0	29.5
13	B. D.+54° 457	9	59 42.75	0.57	26.64	1 59 15.54	7.01	344 24 11.18	45.255	.185		15.8	54 27 25.3	29.3
14	B. D.+53° 453	9	2 10.87	0.57	26.64	2 1 43.66	7.01	344 50 9.88	44.485	.395	C	15.5	54 8 7.2	29.0
15	B. D.+53° 486	9	8 39.17	−0.57	−26.64	2 8 11.96	−7.09	344 50 9.85	46.325	.220	B	15.4	+54 4 19.2	−28.1
16	B. D.+53° 494	9	11 41.32	−0.57	−26.64	2 11 14.11	−7.11	344 50 9.88	48.155	.085		15.3	+54 0 30.5	−27.7
17	B. D.+53° 507	9	14 54.59	0.57	26.63	2 14 27.39	7.16	344 50 9.90	48.845	.745	B	15.4	54 3 30.7	27.3
18	B. D.+53° 541	9	26 30.45	0.58	26.63	2 26 3.24	7.30	344 50 10.05	49.360	.280	C	15.5	54 6 33.5	25.7
19	B. D.+51° 598	9	29 49.90	0.55	26.63	2 29 22.72	7.11	346 50 10.30	49.040	.990	B	13.3	52 3 24.0	25.2
20	B. D.+51° 616	9	35 55.98	−0.55	−26.62	2 35 28.81	−7.17	346 50 10.32	47.275	.200		13.2	+52 0 44.9	−24.3
21	B. D.+48° 750	9	39 30.32	−0.50	−26.62	2 39 3.20	−6.88	350 18 8.80	47.875	.790		9.6	+48 32 31.4	−23.7
22	B. D.+43° 576	9	41 32.56	0.44	26.62	2 41 5.50	6.53	355 0 9.30	44.400	.345		4.9	43 51 32.6	23.2
23	B. D.+47° 702	7	42 53.38	0.48	26.62	2 42 26.28	6.80	351 38 9.62	46.630	....		8.3	47 12 53.0	23.1
24	B. D.+47° 714	7	45 14.05	0.49	26.62	2 44 46.94	6.89	350 50 8.72	41.070	.925	B	9.2	48 5 55.3	22.8
25	B. D.+47° 721	9	46 25.18	−0.49	−26.62	2 45 58.07	−6.89	350 50 8.58	46.580	.530		9.1	+48 0 53.4	−22.6
26	*γ* Persei...........	11	58 7.66	−0.57	**−26.57**	2 57	....	345 44 10.08	45.825 .820	.680 .630		14.4	+53 7	....
27	*β* Persei...........	11	2 12.97	0.40	**26.56**	3 1	....	358 16 9.65	47.370 .325	.180 .115		1.6	40 34	....
28	*α* Persei...........	11	17 45.16	0.51	**26.58**	3 17	...	349 20 9.12	47.590 .575	.500 .415		10.7	49 30	....
29	2 H. Camelop......	11	21 34.09	−0.70	**−26.72**	3 21	....	339 16 10.35	44.410 .450	.270 .185		21.5	+59 35	....

1900 NOVEMBER 27. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
30	*o* Cassiopeiæ......	11	39 41.01	−0.32	**−26.29**	0 39	....	351 6 10.10	46.490 .485	.380 .310		9.1	+47 44	....
31	*γ* Cassiopeiæ......	11	51 13.27	0.52	**26.23**	0 50	....	338 40 10.35	46.210 .230	.120 .035		22.7	60 11	....
32	ξ Andromedæ.....	11	16 59.37	0.29	**26.32**	1 16	....	353 50 9.65	46.370 .390	.230 .165		6.2	45 0	....
33	*δ* Cassiopeiæ......	11	19 49.83	−0.50	**−26.18**	1 19	....	339 8 9.85	45.130 .090	.980 .925		22.2	+59 43	....
34	B. D.+47° 434^1	9	25 24.56	−0.32	−26.26	1 24 57.98	−6.01	351 0 9.78	44.815	.700	B	9.2	+47 54 38.7	−33.6
35	B. D.+47° 434^2	8	25 26.44	−0.32	−26.26	1 24 59.86	−6.01	351 0 9.85	44.225	.120	B	9.2	+47 54 46.7	−33.6

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
22 0 41	29.75	56.1	55.0
1 21	29.74	56.5	56.0
1 50	29.73	57.1	57.0
2 15	29.73	57.2	57.0
2 48	29.72	57.2	56.8
3 26	29.71	56.8	56.0
27 0 39	29.72	44.5	44.3
1 20	29.73	44.2	44.0

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 3, 4, 26, 27, 28, 29, 30, 31, 32, 33.	Bisections at I, II, VI, VII.
5, 34.	Bisections at I, III.
6.	Bisection at V.
23.	Bisection at III.
25.	Bisections at VI, VII.
35.	Bisections at V, VII.

Notes.

Nov. 22. Conditions for observing bad in the extreme.
Stars unsteady and diffuse. Faint stars impossible.
27. Conditions for observing very good.

Adopted Equator Point.... 1–29 38° 56′ 17″.68
30–35 13 .11

No.	Eq. Points.
	° ′ ″
1	38 56 17.0
2	17.5
3	17.3
4	17.7
26	18.3
27	18.4
28	17.4
29	17.8
30	12.7
31	12.6
32	12.3
33	13.8

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +47° 442	9	20 49.69	−0.32	−26.26	1 26 23.11	−6.03	351 0 9.75	44.280	.130	B	9.2	+47 54 46.2	−33.4
2	B. D. +47° 450	8	28 38.15	0.32	26.26	1 28 11.57	−6.06	351 0 9.78	43.425	.405	B	9.2	47 55 4.3	−33.3
3	Eros............	9	30 11.69	−0.37	−26.27	1 29 45.05	....	347 18 10.35	40.175 .155	.105 .020		13.1	+51 34 56.6	....
4	B. D. +47° 463	8	31 13.18	−0.32	−26.27	1 30 46.59	−6.08	351 4 9.50	40.190	.160		9.1	+47 48 50.7	−33.0
5	B. D. +44° 335	6	32 37.71	0.28	26.27	1 32 11.16	5.90	354 40 9.50	40.760	.645	C	5.5	44 19 3.2	32.4
6	B. D. +44° 346	9	35 17.88	0.28	26.27	1 34 51.33	5.93	354 40 9.32	47.130	.110	C	5.5	44 17 1.8	32.1
7	B. D. +43° 364	9	40 48.25	0.28	26.27	1 40 21.70	5.98	354 40 9.35	41.140	.030	A	5.4	44 9 16.7	31.5
8	B. D. +39° 421	9	46 58.03	0.24	26.27	1 46 31.52	5.83	358 44 8.78	45.875	.805	A	1.2	40 3 41.9	30.3
9	B. D. +40° 394	9	47 49.86	−0.24	−26.27	1 47 23.35	−5.85	358 44 8.75	41.795	.710	C	1.3	+40 14 41.1	−30.2
10	B. D. +39° 434	9	49 25.15	−0.24	−26.27	1 48 58.64	−5.86	358 44 8.70	46.350	.285	C	1.3	+40 13 13.6	−30.0
11	B. D. +39° 447	9	52 54.73	0.24	26.27	1 52 28.22	5.89	358 44 8.78	46.325	.240	A	1.2	40 3 33.4	29.6
12	B. D. +39° 448	9	54 8.82	0.24	26.27	1 53 42.31	5.90	358 44 8.72	41.180	.090	A	1.2	40 5 12.2	29.5
13	B. D. +39° 454	9	56 17.67	0.24	26.27	1 55 51.16	5.92	358 44 8.88	41.630	.505	B	1.3	40 11 31.7	29.3
14	B. D. +39° 468	9	1 2.89	0.24	26.28	2 0 36.37	5.96	358 44 8.68	43.420	.365		1.2	40 7 43.7	−28.7
15	B. D. +53° 470	9	5 33.49	−0.41	−26.28	2 5 6.80	−7.02	344 46	......	....		...	+54 5	....
16	B. D. + 50° 587	9	28 57.45	−0.36	−26.29	2 28 30.80	−6.98	348 6 10.30	44.720	.645		12.3	+50 45 28.4	−26.2
17	B. D. + 49° 733	9	33 22.90	0.35	26.29	2 32 56.26	6.96	348 46 9.80	44.150	.070		11.6	50 5 39.2	25.5
18	B. D. +46° 622	9	38 26.93	0.31	26.29	2 38 0.33	6.70	352 26 9.70	44.160	.080		7.7	46 25 35.2	24.6
19	B. D. +46° 628	9	39 56.54	0.31	26.29	2 39 29.94	6.75	352 2 9.65	45.640	.590		8.1	46 49 7.0	24.4
20	B. D. +46° 638	9	42 24.25	−0.31	−26.29	2 41 57.65	−6.75	352 18 9.98	45.450	.390		7.9	+46 33 11.2	−24.0
21	B. D. +45° 662	8	43 28.46	−0.30	−26.29	2 43 1.87	−6.71	352 52 9.65	44.190	.150		7.3	+45 59 35.0	−23.8
22	B. D. +46° 644	9	44 8.27	0.31	26.29	2 43 41.67	6.80	351 52 10.02	41.965	.935		8.3	47 0 16.8	23.8
23	B. D. + 44° 591	9	45 40.09	0.29	26.29	2 45 13.51	6.63	354 20 10.50	40.410	.420	C	5.9	44 39 10.4	23.4
24	B. D. + 44° 593	9	45 50.21	0.29	26.29	2 45 23.63	6.62	354 20 10.62	40.930	.810	A	5.7	44 29 18.0	23.4
25	B. D. +44° 598	9	50 2.11	−0.29	−26.29	2 49 35.53	−6.66	354 20 10.70	43.390	.270	B	5.8	+44 35 1.6	−22.8
26	γ Persei	11	58 7.23	−0.39	**−26.30**	2 57	....	345 44 10.72	45.490 .480	.345 .275		14.9	+53 7	....
27	β Persei	11	2 12.66	0.25	**26.37**	3 1	....	358 16 9.58	47. ... .065	.875 .825		1.7	40 34	....
28	α Persei	11	17 44.75	0.34	**26.31**	3 17	....	349 20 9.15	47.360 .340	.245 .195		11.0	49 30	....
29	2 H. Camelop......	11	21 33.45	−0.50	**−26.23**	3 21	....	339 16 10.42	44.185 .180	.040 .935		22.2	+59 35	....

1900 NOVEMBER 30. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
30	o Cassiopeiæ	11	39 42.01	0.28	**−27.38**	0 39	....	351 6 10.35	46.435 .420	.250 .185		9.2	+47 44	....
31	γ Cassiopeiæ	11	51 14.25	0.52	**27.27**	0 50	....	338 40 11.10	46.115 .120	.970 .875		23.1	60 11	....
32	ξ Andromedæ	11	17 0.35	0.24	**27.39**	1 16	....	353 50 10.82	46.225 .210	.070 .975		6.3	45 0	....
33	δ Cassiopeiæ	11	19 50.80	−0.51	**−27.19**	1 19	....	339 8 11.40	44.925 .925	.730 .645		22.6	+59 43	....
34	B. D. +48° 453	9	25 28.02	−0.30	−27.32	1 25 0.40	−6.04	350 2 10.65	42.005	.870		10.4	+48 50 16.9	−34.1
35	B. D. +50° 298	9	26 46.64	0.32	27.32	1 26 19.00	6.18	348 10 11.15	40.780	.690	A	12.3	50 39 26.6	34.2
36	Eros............	11	28 10.09	0.32	27.32	1 27 42.45	....	348 10 11.52	46.340	.175		12.4	50 40 54.9	....
37	B. D. + 48° 477	9	30 36.87	0.29	27.32	1 30 9.26	6.10	350 10 10.38	42. ...	.320		10.2	48 42 9.1	33.6
38	B. D. +50° 314	12	31 18.55	0.33	27.32	1 30 50.90	6.25	348 6 11.28	44.205	.105		12.5	50 45 34.2	33.8
39	B. D. +44° 341	7	33 3.88	0.24	−27.32	1 32 36.32	−5.90	353 58 10.05	42.660	.500		6.2	+44 53 59.4	−32.8

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
27 1 50	29.73	43.8	43.8
2 20	29.74	43.3	43.0
2 50	29.75	43.0	42.4
3 27	29.75	42.2	41.8
30 0 41	29.91	38.1	38.9
1 20	29.90	38.4	38.5

Telescope micrometer bisections are made at III and V, except as noted below.

1, 4, 5, 24, 38, 39.	Bisections at V, VII.
2, 23.	Bisections at II, III.
3.	Bisections at II, III, V, VI.
20, 21.	Bisections at I, III.
22.	Bisections at IV, V.
26, 28, 29, 30, 31, 32, 33.	Bisections at I, II, VI, VII.
27.	Bisections at II, VI, VII.
36.	Bisections at II, VI.
37.	Bisection at V.

Note.
Nov. 30. Seeing good.

Adopted Equator Point....		
1–29		38° 56′ 13″.11
30–39	1h. 030	11 .05
	3 . 168	11 .98

No.	Eq. Points.
	° ′ ″
26	38 56 12.9
27	13.3
28	13.6
29	13.7
30	11.4
31	11.0
32	10.5
33	11.3

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+44° 347	9	35 21.51	-0.24	-27.32	1 34 53.95	-5.91	354 20 9.80	44.670	.585		5.8	+44 31 21.7	-32.5
2	B. D.+42° 352	9	36 37.27	0.22	27.32	1 36 9.73	5.86	355 42 10.92	46.860	.765		4.4	43 8 37.3	32.2
3	B. D.+42° 356	9	37 50.90	0.22	27.32	1 37 23.36	5.87	355 42 11.00	44.535	.485	B	4.4	43 12 34.5	32.1
4	B. D.+42° 361	9	38 47.20	0.22	27.32	1 38 19.66	5.88	355 42 11.08	44.865	.770		4.4	43 9 15.3	32.0
5	B. D.+42° 370	9	40 50.25	0.22	27.32	1 40 22.71	5.90	355 42 11.15	43.760	.695	B	4.5	43 12 49.4	31.7
6	B. D.+43° 373	9	43 44.84	0.22	-27.33	1 43 17.29	-5.94	355 42 11.22	47.705	.595	C	4.5	+43 14 46.9	-31.4
7	B. D.+42° 388	9	45 36.68	-0.22	-27.33	1 45 9.13	-5.95	355 48 10.68	47.895	.770		4.3	+43 2 18.0	-31.2
8	B. D.+54° 413	9	48 47.83	0.39	27.33	1 48 20.11	6.78	344 36 11.08	47.215	.085		16.3	54 14 42.6	32.2
9	B. D.+54° 431	9	53 30.90	0.39	27.33	1 53 3.18	6.86	344 36 11.20	48.705	.555	C	16.4	54 20 40.1	31.6
10	B. D.+40° 423	9	55 42.56	0.19	27.33	1 55 15.04	5.93	358 6 10.32	48.220	.100		1.9	40 44 9.6	29.8
11	B. D.+53° 460	8	3 59.52	-0.37	-27.33	2 3 31.82	6.91	345 28 11.92	46.985	.895		15.3	+53 22 44.9	-30.2
12	B. D.+53° 470	9	5 34.35	-0.39	-27.33	2 5 6.63	-7.00	344 46 11.00	45.405	.305		16.1	+54 5 17.0	-30.1
13	B. D.+52° 549	9	9 2.76	0.37	27.34	2 8 35.05	6.96	345 44 10.98	45.790	.660		15.0	53 7 8.8	29.6
14	B. D.+52° 563	8	12 40.76	0.37	27.34	2 12 13.05	7.00	345 44 11.08	45.180	.060		15.0	53 7 20.4	29.1
15	B. D.+52° 592	9	25 37.94	0.36	27.34	2 25 10.24	7.09	346 28 11.02	43.295	.175		14.3	52 23 56.0	27.3
16	B. D.+52° 595	9	27 51.67	-0.36	-27.34	2 27 23.97	-7.11	346 28 11.10	43.440	.315		14.3	+52 23 53.2	-27.0
17	B. D.+52° 602	9	31 27.38	-0.36	27.35	2 30 59.67	-7.15	346 28 11.28	45.890	.765		14.2	+52 23 5.9	-26.5
18	B. D.+52° 609	9	33 58.77	0.36	27.35	2 33 31.06	7.18	346 28 11.18	46.730	.610		14.2	52 22 49.9	26.2
19	B. D.+52° 617	9	36 54.68	0.35	27.35	2 36 26.98	7.21	346 30 12.10	48.565	.410		14.2	52 20 14.1	25.7
20	B. D.+43° 566	9	38 8.41	0.23	27.35	2 37 40.83	6.51	354 58 11.18	46.530	.380		5.2	43 52 45.1	24.9
21	B. D.+47° 692	9	39 33.03	-0.28	-27.35	2 39 5.40	-6.82	351 8 10.50	43.840	.720		9.2	+47 43 41.1	-25.0
22	B. D.+47° 698	9	41 54.80	0.28	-27.35	2 41 27.17	-6.84	351 8 10.32	43.145	.090	B	9.3	+47 47 8.4	-24.7
23	B. D.+42° 633	8	42 46.98	0.21	27.35	2 42 19.42	6.45	356 32 10.42	44.535	.505		3.5	42 19 22.3	24.1
24	B. D.+42° 637	9	44 1.82	0.21	27.35	2 43 34.26	5.46	356 32 11.20	41.760	.690	B	3.6	42 23 28.4	23.9
25	B. D.+42° 638	9	44 40.45	0.22	27.35	2 44 12.88	6.50	355 56 9.45	47.520	.465		4.1	42 54 25.9	23.9
26	B. D.+46° 648	9	45 34.39	-0.26	-27.35	2 45 6.78	-6.76	352 24 10.12	48.375	.290		7.8	+46 26 11.1	-24.1
27	*γ* Persei	11	58 8.17	-0.37	**-27.25**	2 57	....	345 44 10.80	45.420 .400	.265 .170		15.1	+53 7	....
28	*β* Persei	11	2 13.60	0.19	**27.36**	3 1	....	358 16 9.92	46.970 .955	.765 .680		1.7	40 34	....
29	*α* Persei	11	17 45.85	0.31	**27.42**	3 17	....	349 20 9.88	47.205 .195	.080 .005		11.1	49 30	....
30	2 H. Camelop......	11	21 34.66	-0.50	**-27.42**	3 21	....	339 16 10.65	44.090 .100	.975 .810		22.5	+59 35	....

1900 DECEMBER 5. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
31	*υ* Cassiopeiæ......	11	39 43.86	-0.16	**-29.42**	0 39	....	351 6 11.58	46.255 .230	.130 .060		9.2	+47 44	....
32	*γ* Cassiopeiæ......	9	51 16.20	0.35	**29.51**	0 50	....	338 40 10.52	46.055 .045	.970 .895		23.0	60 11	....
33	*ξ* Andromedæ.....	11	17 2.27	0.13	**29.48**	1 16	....	353 50 10.35	46.200 .195	.085 .010		6.3	45 0	....
34	*δ* Cassiopeiæ......	9	19 52.88	-0.34	**-29.54**	1 19	....	339 8 11.58	44.815 .775	.680 .575		22.5	+59 43	....
35	B. D.+49° 403	9	25 28.08	-0.19	-29.50	1 24 58.39	-6.05	348 56 11.52	44.780	.750		11.5	+49 55 23.4	-35.0
36	Eros............	11	27 0.81	-0.18	-29.50	1 26 31.13	....	349 52 12.52	47.590 .580	.430 .380		10.5	+48 58 27.5	....
37	B. D.+49° 414	9	28 55.52	-0.19	-29.50	1 28 25.83	-6.11	348 50 11.50	43.955	.845		11.6	+50 1 37.3	-34.7
38	B. D.+49° 416	9	30 41.66	0.19	29.50	1 30 11.97	6.14	348 44 11.68	47.450	.385	C	11.8	50 12 57.6	34.5
39	B. D.+49° 422	9	32 18.20	0.19	29.50	1 31 48.51	6.16	348 44 11.58	47.980	.895		11.7	50 6 21.8	34.3
40	B. D.+52° 399	9	33 49.69	0.22	29.50	1 33 19.97	6.35	346 26 11.38	46.060	.995		14.2	52 25 1.1	34.5
41	B. D.+45° 416	9	35 58.34	0.14	29.50	1 35 28.70	5.95	352 56 10.78	45.950	.875		7.3	45 54 57.1	33.3
42	B. D.+52° 420	9	37 53.43	-0.22	-29.50	1 37 23.71	-6.41	346 28 11.12	44.630	.595		14.2	+52 23 28.5	-34.1

Time.		Barom.	Att. Ther.	Ex. Ther.
d	h m	in.	°	°
30	1 50	29.90	37.8	38.2
	2 22	29.895	38.2	38.5
	2 47	29.90	37.9	38.1
	3 25	29.90	37.5	37.7
5	0 38	29.76	40.7	39.7
	1 20	29.77	39.6	39.1

Telescope micrometer bisections are made at III and V, except as noted below.

22, 35.	Bisections at I, III.
23, 24.	Bisections at II, III.
26, 37.	Bisections at V, VII.
27, 28, 29, 30, 31, 32, 33, 34, 36.	Bisections at I, II, VI, VII.

Note.

Dec. 5. Stars steady, but slightly diffuse. Too much moonlight for faint stars.

Adopted Equator Point......			
1-30	1h.030	38° 56′	11″.05
	3 .168		11 .98
31-42	1 .030		10 .48
	3 .168		11 .60

No.	Eq. Points.
	° ′ ″
27	38 56 11.8
28	11.9
29	11.6
30	12.6
31	10.2
32	10.6
33	10.6
34	10.5

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +54° 408	9	47 47.63	0.26	−29.50	1 47 17.87	−6.79	343 44 11.25	46.815	.740		17.2	+55 6 50.0	−33.3
2	B. D. +54° 415	9	49 45.19	0.26	29.50	1 49 15.43	6.82	343 44 11.22	50.235	....		17.2	55 5 44.4	33.1
3	B. D. +54° 417	9	50 9.09	0.26	29.50	1 49 39.33	6.84	343 44 11.20	45.445	.295	B	17.3	55 10 28.2	33.0
4	B. D. +54° 429	9	52 46.97	0.26	29.50	1 52 17.21	6.87	343 44 11.22	48.715	.670		17.2	55 6 13.3	32.7
5	B. D. +55° 484	9	57 40.90	0.26	29.51	1 57 11.13	6.97	343 40 10.08	45. ...	.360	C	17.4	55 17 44.0	32.2
6	B. D. +54° 453	8	58 54.72	−0.26	−29.51	1 58 24.95	−6.97	343 40 10.20	42.045	.970	A	17.3	+55 9 7.9	−32.0
7	B. D. +55° 527	9	3 25.16	−0.26	−29.51	2 2 55.39	−7.06	343 28 10.02	45.565	.520		17.5	+55 23 16.2	−31.5
8	B. D. +54° 469	9	3 46.08	0.26	29.51	2 3 16.31	7.03	343 50 10.30	45.305	.175		17.1	55 1 18.5	31.4
9	B. D. +54° 483	9	6 48.37	0.25	29.51	2 6 18.61	7.04	344 12 10.02	46.430	.375		16.7	54 38 58.1	30.9
10	B. D. +54° 497	9	8 54.12	0.25	29.51	2 8 24.36	7.06	344 12 10.08	40.125	.045	A	16.7	54 37 44.4	30.7
11	B. D. +54° 511	9	12 12.73	−0.26	−29.51	2 11 42.96	−7.16	343 46 11.80	45.665	.600		17.2	+55 5 11.6	−30.0
12	B. D. +54° 530	9	16 21.14	−0.25	−29.51	2 15 51.38	−7.17	344 14 11.38	43.590	.510		16.7	+54 37 51.4	−29.7
13	B. D. +52° 576	9	18 12.25	0.23	29.51	2 17 42.51	7.03	345 54 10.92	46.590	.520	B	14.9	53 0 5.7	29.3
14	B. D. +52° 580	8	19 40.10	0.23	29.51	2 19 10.36	7.04	345 54 11.02	40.700	.630	A	14.8	52 55 30.6	29.1
15	B. D. +52° 581	9	21 7.53	0.23	29.51	2 20 37.79	7.07	345 54 11.18	46.105	.025	C	14.9	53 3 27.7	28.9
16	B. D. +54° 554	9	22 23.88	−0.25	−29.51	2 21 54.12	7.25	344 20 11.65	42.875	.845		16.6	+54 32 4.1	−28.9
17	B. D. +53° 532	9	23 42.37	−0.23	−29.51	2 23 12.63	7.14	345 26 11.65	46.770	.695		15.3	+53 24 48.9	−28.6
18	B. D. +54° 565	9	25 9.91	0.25	29.52	2 24 40.14	7.27	344 24 11.12	44.595	.510		16.5	54 27 32.4	28.5
19	B. D. +53° 540	9	26 26.38	0.24	29.52	2 25 56.62	7.19	345 18 12.12	47.520	.425		15.5	53 32 34.4	28.2
20	B. D. +52° 597	9	28 0.05	0.23	29.52	2 27 30.30	7.15	345 52 10.52	48.190	.170		14.9	52 58 21.8	28.0
21	B. D. +53° 546	9	29 8.95	−0.23	−29.52	2 28 39.20	−7.20	345 36 11.62	44.880	.800		15.2	+53 15 25.2	−27.8
22	B. D. +50° 589	9	31 59.84	−0.19	−29.52	2 31 30.13	−6.96	348 30 11.40	49.035	.970	C	12.1	+50 26 28.4	−27.2
23	B. D. +50° 595	9	33 1.80	0.19	29.52	2 32 32.09	6.96	348 30 11.60	44.455	.370		12.0	50 21 30.2	27.0
24	B. D. +52° 616	9	36 33.77	0.23	29.52	2 36 4.02	7.27	345 44 10.98	48.025	.020		15.0	53 6 25.5	26.8
25	B. D. +49° 753	4	37 24.64	0.19	29.52	2 36 54.93	7.00	348 38 12.50	42.775	.760	A	11.8	50 10 45.9	26.4
26	B. D. +50° 620	9	38 41.71	−0.19	−20.52	2 38 12.00	−7.02	348 38 12.60	48.335	.325	C	12.0	+50 18 40.0	−26.2
27	B. D. +50° 627	8	40 6.33	−0.19	−29.52	2 39 36.62	−7.03	348 38 12.32	48.510	.390		11.8	+50 12 10.1	−26.0
28	B. D. +50° 636	9	42 12.65	0.19	29.52	2 41 42.94	7.08	348 22 11.78	45.540	.450		12.2	50 29 9.6	25.8
29	B. D. +48° 764	7	43 19.98	0.17	29.52	2 42 50.29	6.91	350 22 10.72	48.295	.235		10.0	48 28 15.3	25.4
30	B. D. +40° 612	9	44 41.79	0.09	29.52	2 44 12.18	6.37	357 58 11.25	44.285	.270		2.0	40 53 22.9	24.4
31	B. D. +48° 777	7	45 56.91	−0.17	−29.52	2 45 27.22	−6.93	350 22 10.75	47.010	.890		10.0	+48 28 38.7	−25.0
32	γ Persei...........	11	58 10.32	−0.23	**−29.54**	2 57	.....	345 44 11.02	45.330 .315	.180 .130		15.0	+53 7	....
33	β Persei...........	11	2 15.64	0.09	**29.49**	3 1	.....	·358 16 10.68	46.820 .810	.685 .640		1.7	40 34	....
34	α Persei...........	11	17 47.80	0.18	**29.48**	3 17	.....	349 20 9.88	47.165 .155	.025 .980		11.1	49 30	....
35	2 H. Camelop......	11	21 36.70	−0.33	**−29.61**	3 21	.....	339 16 11.40	43.915 .930	.790 .720		22.4	+59 35	....

1900 DECEMBER 6. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
36	o Cassiopeiæ......	11	39 44.29	−0.08	**29.95**	0 39	.....	351 6 12.40	46.245 .240	.130 .065		9.3	+47 44	....
37	γ Cassiopeiæ......	11	51 16.75	0.24	**30.19**	0 50	.....	338 40 12.30	46.020 .010	.860 .790		23.3	60 11	....
38	ξ Andromedæ.....	11	17 2.75	0.06	**30.03**	1 16	.....	353 50 11.10	46.115 .100	.960 .920		6.4	45 0	....
39	δ Cassiopeiæ......	10	19 53.28	−0.24	**−30.06**	1 19	.....	339 8 12.02	44.835 .825	.695 .615		22.8	+59 43	....
40	B. D. +49° 399	9	24 36.64	−0.10	−30.05	1 24 6.49	−6.00	349 26 11.28	42.565	.480		11.1	+49 26 5.5	−35.1

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
5 1 51	29.78	38.8	38.3	2.	Bisection at III.	32	38 56 11.8
2 19	29.79	38.0	37.6	3, 8, 27, 31.	Bisections at V, VII.	33	11.3
2 48	29.80	37.8	37.4	5.	Bisection at V.	34	11.7
3 25	29.81	37.9	37.6	7, 24.	Bisections at I, III.	35	11.6
6 0 38	30.00	36.8	36.4	16, 30.	Bisections at IV, V.	36	11.0
1 22	30.00	36.1	36.0	32, 33, 34, 35, 36, 37, 38, 39.	Bisections at I, II, VI, VII.	37	10.9
						38	9.5
						39	11.5

Note.

Dec. 6. Thin clouds throughout. Stars very steady but the faint ones exceedingly difficult.

Adopted Equator Point.... 1–35 {$1^h.030$ 38° 56′ 10″.48
{3 .168 11 .60
36–40 10 .89

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	Eros…………	11	27 7.88	0.10	−30.05	1 26 37.73	….	350 16 11.55	36.935 .920	.875 .810		10.3	+48 37 52.0	….
2	B. D.+49° 418	9	31 32.63	−0.10	−30.05	1 31 2.48	−6.10	349 24 11.58	48.110	.105		11.1	+49 26 18.0	−34.4
3	B. D.+53° 355	9	33 41.73	0.16	30.05	1 33 11.52	6.43	345 14 11.38	42.485	.490		15.8	53 38 11.7	34.8
4	B. D.+53° 363	9	34 28.19	0.15	30.04	1 33 58.00	6.42	345 28 12.15	48.520	.470		15.5	53 22 14.4	34.7
5	B. D.+53° 375	9	38 2.30	0.16	30.04	1 37 32.10	6.48	345 28 12.10	42.850	.765	B	15.6	53 27 16.7	34.4
6	B. D.+52° 433	9	40 20.18	0.15	30.04	1 39 49.99	6.49	345 44 11.70	46.350	.325		15.2	53 6 56.9	34.0
7	B. D.+53° 386	9	41 51.70	−0.16	−30.04	1 41 21.50	−6.55	345 26 12.32	47.970	.925	C	15.6	+53 30 51.5	−33.9
8	B. D.+53° 388	9	42 12.05	−0.16	−30.04	1 41 41.85	−6.54	345 26 12.45	49.270	.155		15.5	+53 23 58.5	−33.9
9	B. D.+53° 395	9	43 47.88	0.16	30.04	1 43 17.68	6.57	345 26 12.62	44.235	.025		15.5	53 25 35.8	33.7
10	B. D.+53° 398	6	44 37.56	0.15	30.04	1 44 7.37	6.57	345 34 12.15	41.085	.020	A	15.3	53 15 19.7	33.6
11	B. D.+53° 402	5	45 48.60	0.16	30.04	1 45 18.40	6.60	345 34 12.35	37.680	.580	B	15.5	53 22 53.1	33.5
12	B. D.+53° 416	9	48 44.34	0.16	30.04	1 48 14.14	6.64	345 26 12.70	47.595	.515		15.5	53 24 31.9	33.2
13	B. D.+53° 437	9	55 59.73	−0.16	−30.04	1 55 29.53	−6.76	345 18 11.85	47.550	.476		15.7	+53 32 33.8	−32.3
14	B. D.+53° 485	9	8 35.55	−0.16	−30.03	2 8 5.36	−6.95	345 16 11.12	46.270	.195		15.7	+53 34 59.1	−30.8
15	B. D.+53° 501	9	12 43.62	0.17	30.03	2 12 13.42	7.01	345 12 12.35	47.680	.605		15.8	53 38 30.9	30.3
16	B. D.+53° 525	9	20 7.57	0.17	30.03	2 19 37.37	7.12	345 10 10.85	46.470	.355		15.8	53 40 56.0	29.3
17	B. D.+52° 585	9	22 32.14	0.16	30.02	2 22 1.96	7.09	345 46 11.95	42.740	.665		15.2	53 6 5.4	28.9
18	B. D.+40° 567	9	34 48.74	−0.02	−30.02	2 34 18.70	6.28	357 58 11.52	43.690	.565		1.1	+40 53 34.0	−25.8
19	B. D.+40° 570	9	36 14.78	−0.02	−30.02	2 35 44.74	−6.30	357 58 11.42	48.725	.645	C	2.1	+40 58 24.1	−25.6
20	B. D.+42° 614	9	37 42.73	0.04	30.02	2 37 12.67	6.45	355 44 10.48	45.105	.040		4.4	43 7 10.7	25.7
21	B. D.+44° 569	9	38 48.72	0.07	30.02	2 38 18.63	6.60	353 40 10.65	45.700	.640		6.6	45 11 1.3	25.8
22	B. D.+44° 573	9	40 21.13	0.06	30.02	2 39 51.05	6,61	353 48 10.30	48.365	.295		6.4	45 2 10.4	25.6
23	B. D.+44° 577	9	41 37.47	−0.06	−30.02	2 41 7.39	−6.60	354 0 10.72	45.210	.130		6.2	+44 51 10.4	−25.4
24	B. D.+46° 641	9	43 5.17	−0.08	−30.02	2 42 35.07	−6.77	352 2 11.32	47.400	.310		8.3	+46 48 29.9	−25.4
25	B. D.+43° 583	9	44 3.04	0.05	30.02	2 43 32.97	6.53	355 26 11.22	47.815	.775		4.7	43 24 18.0	24.9
26	B. D.+43° 593	9	46 29.54	0.05	30.01	2 45 59.48	6.54	355 26 10.95	44.470	.460	A	4.7	43 22 7.4	24.6
27	B. D.+46° 652	9	47 53.59	0.08	30.01	2 47 23.50	6.81	352 2 11.30	46.540	.430	A	8.3	46 45 31.9	24.8
28	B. D.+46° 656	9	49 25.50	−0.09	−30.01	2 48 55.40	−6.84	352 2 11.58	49.445	.385	C	8.4	+46 54 16.2	−24.5
29	γ Persei…………	11	58 10.72	−0.17	**−30.00**	2 57 …..	….	345 44 11.75	45.255 .260	.155 .065		15.2	+53 7 ….	….
30	β Persei…………	11	2 16.12	0.02	**30.04**	3 1 …..	….	358 16 10.92	46.790 .765	.670 .590		1.7	40 34 ….	….
31	α Persei…………	11	17 48.25	0.12	**29.99**	3 17 …..	….	349 20 11.30	47.035 .015	.890 .825		11.2	49 30 ….	….
32	2 H. Camelop. ……	11	21 37.03	−0.28	**−29.99**	3 21 …..	….	339 16 11.42	43.905 .890	.805 .735		22.7	+59 35 ….	….

1900 DECEMBER 10. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
33	o Cassiopeiæ ……	11	39 46.57	−0.04	**−32.34**	0 39 …..	….	351 6 11.68	46.200 .195	.045 .000		9.4	+47 44 ….	….
34	γ Cassiopeiæ ……	11	51 18.88	0.23	**32.43**	0 50 …..	….	338 40 11.48	45.935 .910	.810 .705		23.6	60 11 ….	….
35	ξ Andromedæ ……	11	17 4.97	0.01	**32.34**	1 16 …..	….	353 50 10.42	46.105 .090	.935 .860		6.5	45 0 ….	….
36	δ Cassiopeiæ ……	11	19 55.58	−0.22	**−32.46**	1 19 …..	….	339 8 11.62	44.740 .715	.560 .490		23.1	+59 43 ….	….
37	B. D.+46° 370	9	24 44.26	−0.03	−32.40	1 24 11.83	−5.78	352 22 11.02	42.410	.340		8.1	+46 30 3.8	−35.0
38	Eros…………	11	28 39.26	−0.04	−32.40	1 28 6.82	….	351 44 10.60	45.090 .120	.065 .895		8.8	+47 7 13.2	….
39	B. D.+46° 393	6	30 37.63	−0.03	−32.40	1 30 5.20	−5.86	352 22 10.25	41.585	….	C	8.2	+46 36 46.3	−34.5

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
6 1 50	30.00	35.6	35.3	1, 29, 30, 31, 32, 33, 34, 35, 36, 38.	Bisections at I, II, VI. VII.	29	38 56 11.3
2 25	30.00	35.1	35.0	3, 6, 7.	Bisections at I, III.	30	10.9
2 50	30.00	35.0	34.8	8, 9.	Bisections at V, VII.	31	10.5
3 22	30.01	35.0	34.6	10, 11.	Bisections at VI, VII.	32	11.5
10 0 38	30.01	31.5	29.9	39.	Bisection at III.	33	9.3
1 20	30.005	30.6	29.5			34	8.7
						35	8.7
						36	9.1

Note.
Dec. 10. Good seeing.

Adopted Equator Point.... 1–32 38° 56′ 10″.89

33–39 $\begin{cases} 1^h.032 \\ 3\ .168 \end{cases}$ 8 .95
9 .68

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +46° 404	6	31 51.32	-0.03	-32.40	1 31 18.89	-5.87	352 22 10.32	42.165	.015	A	8.0	+46 26 53.2	-34.4
2	B. D. +43° 341	10	33 48.48	0.00	32.40	1 33 16.08	5.75	355 18 11.00	48.110	.095		4.9	43 32 8.6	33.6
3	B. D. +41° 329	9	36 54.85	+0.02	32.40	1 36 22.47	5.69	357 24 10.62	48.655	.560		2.7	41 25 59.2	32.9
4	B. D. +41° 342	9	41 49.50	0.02	32.40	1 41 17.12	5.76	357 8 10.75	48.030	.940		3.0	41 42 11.4	32.5
5	B. D. +41° 353	9	43 52.48	0.02	32.40	1 43 20.10	5.77	357 28 9.90	43.665	.610	C	2.7	41 30 1.3	32.2
6	B. D. +41° 362	9	47 21.34	+0.02	-32.40	1 46 48.96	-5.80	357 28 10.02	40.380	.310	A	2.6	+41 21 23.5	-31.8
7	B. D. +41° 374	9	51 6.61	+0.02	-32.41	1 50 34 22	-5.85	357 32 10.10	47.915	.790	C	2.6	+41 24 40.2	-31.5
8	B. D. +41° 377	9	51 47.94	0.02	32.41	1 51 15.55	5.85	357 32 10.45	51.190	.110		2.5	41 17 10.2	31.4
9	B. D. +40° 415	9	54 17.48	0.03	32.41	1 53 45.10	5.86	357 58 10.78	47.370	.260		2.1	40 52 23.5	31.0
10	B. D. +40° 421	9	55 19.56	0.03	32.41	1 54 47.18	5.87	357 58 11.08	45.105	.010		2.1	40 53 6.5	30.9
11	B. D. +39° 464	9	0 21.54	+0.04	-32.41	1 59 49.17	-5.84	359 34 10.08	44.270	.225		0.4	+39 17 22.4	-30.1
12	B. D. +38° 408	9	1 0.77	+0.05	-32.41	2 0 28.41	-5.81	0 26 10.45	42.870	.725		0.5	+38 25 47.8	-29.8
13	B. D. +37° 486	9	3 5.21	+0.06	32.41	2 2 32.86	5.78	1 28 11.15	43.440	.325		1.6	37 23 34.8	29.4
14	B. D. +55° 551	9	8 45.99	-0.14	32.41	2 8 13.44	7.08	343 40 10.62	46.625	....	C	17.9	55 17 19.1	31.6
15	B. D. +54° 500	9	9 14.15	0.14	32.41	2 8 41.60	7.07	343 40 10.70	44.780	.705	A	17.7	55 8 13.7	31.6
16	B. D. +50° 599	9	34 13.81	-0.08	-32.42	2 33 41.31	-7.03	347 40 11.55	42.545	.520		13.2	+51 12 6.7	-27.8
17	B. D. +50° 601	7	34 22.20	-0.08	-32.42	2 33 49.70	-7.03	347 40 11.72	42.665	.540		13.2	+51 12 3.0	-27.8
18	B. D. +39° 609	9	36 16.56	-0.04	32.42	2 35 44.18	6.23	358 46 11.08	44.985	.900		1.2	40 5 8.3	25.9
19	B. D. +42° 613	9	37 43.72	0.01	32.42	2 37 11.31	6.41	356 4 10.95	44.545	.515		4.1	42 47 20.0	26.2
20	B. D. +40° 582	9	38 34.89	0.03	32.42	2 38 2.50	6.29	358 10 10.15	44.320	.215		1.9	40 41 22.5	25.7
21	B. D. +40° 589	9	40 7.55	+0.03	-32.42	2 39 35.16	-6.29	358 20 10.92	49.190	.070		1.7	+40 29 48.3	-25.5
22	B. D. +42° 628	9	41 31.99	+0.01	-32.42	2 40 59.58	-6.46	355 52 11.42	44.330	.250		4.3	+42 59 23.2	-25.7
23	B. D. +40° 602	9	42 43.04	0.03	32.42	2 42 10.65	6.32	358 24 9.55	43.450	.400	C	1.7	40 34 5.1	25.2
24	B. D. +40° 610	9	44 30.36	+0.03	32.42	2 43 57.97	6.33	358 24 10.00	42.570	.485	A	1.6	40 24 41.0	24.9
25	B. D. +48° 782	9	46 18.32	-0.06	32.42	2 45 45.84	6.98	349 44 10.35	49.660	.620		10.9	49 5 49.4	25.9
26	B. D. +42° 643	9	46 45.23	+0.01	-32.42	2 46 12.82	-6.47	356 28 10.82	48.965	.860		3.7	+42 21 54.7	-24.9
27	*γ* Persei	11	58 13.07	-0.11	**-32.42**	2 57	....	345 44 11.10	45.190 .180	.080 .005		15.4	+53 7	....
28	*β* Persei	11	2 18.44	+0.03	**32.42**	3 1	....	358 16 10.90	46.705 .700	.545 .490		1.8	40 34	....
29	*α* Persei	11	17 50.59	-0.06	**32.40**	3 17	....	349 20 10.98	46.975 .970	.795 .775		11.4	49 30	....
30	2 H. Camelop......	11	21 39.44	-0.22	**-32.47**	3 21	....	339 16 11.48	43.820 .805	.660 .610		23.0	+59 35	....

1900 DECEMBER 11. CLAMP EAST.

KING, OBSERVER. **HAMMOND, ASSISTANT.**

31	*o* Cassiopeiæ	10	39 47.22	-0.06	**-32.98**	0 39	....	351 6 11.15	46.230 .180	.050 .975		9.4	+47 44	....
32	*γ* Cassiopeiæ	11	51 19.48	0.27	**33.02**	0 50	....	338 40 11.85	45.950 .940	....		23.5	60 11	....
33	*ξ* Andromedæ	11	17 5.58	0.03	**32.95**	1 16	....	353 50 10.30	46.105 .090	.960 .895		6.5	45 0	....
34	*δ* Cassiopeiæ	11	19 56.07	0.26	**-32.94**	1 19	....	339 8 11.72	44.790 .730	.600 .535		23.0	+59 43	....
35	B. D. +49° 400	8	25 17.65	-0.09	-32.97	1 24 44.59	-5.97	348 46 11.78	41.255	.070		12.0	+50 6 31.4	-35.8
36	B. D. +48° 454	7	26 5.00	0.07	32.97	1 25 31.96	5.90	350 20 10.88	42.585	.460		10.3	48 32 3.3	35.4
37	B. D. +48° 463	9	27 55.25	0.07	32.97	1 27 22.21	5.92	350 20 10.78	46.110	.070		10.2	48 30 55.1	35.2
38	Eros	11	29 18.37	0.05	32.97	1 28 45.35	....	352 8 11.82	43.330	.285		8.3	46 43 45.3	....
39	B. D. +51° 339	5	31 3.66	-0.12	-32.97	1 30 30.57	-6.14	347 36 10.62	46.515	.410		13.2	+51 14 51.2	-35.4

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
10 1 50	30.00	30.0	29.0
2 25	29.99	29.5	29.1
2 48	29.985	29.0	28.9
3 24	29.98	28.4	28.0
11 0 38	29.87	30.0	29.9
1 20	29.88	29.8	29.4
1 49	29.89	29.5	28.9

Telescope micrometer bisections are made at III and V, except as noted below.

1.	Bisections at V, VII.
2.	Bisections at VI, VII.
8, 36.	Bisections at IV, V.
11, 16, 19, 25, 35.	Bisections at I, III.
14.	Bisection at III.
17.	Bisections at V, VI.
27, 28, 29, 30, 31, 33, 34.	Bisections at I, II, VI, VII.
32.	Bisections at I, II.
38.	Bisections at II, VI.

Note.

Dec. 11. Very poor seeing. Stopped by clouds.

Adopted Equator Point....	1-30	$\begin{cases} 1^h.032 \\ 3\ .168 \end{cases}$	38° 56′ 8″.95 9 .68
	31-39		9 .38

No.	Eq. Points.
	° ′ ″
27	38 56 9.8
28	9.5
29	9.4
30	10.0
31	8.8
32	9.6
33	8.9
34	10.2

1900 DECEMBER 12. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*o* Cassiopeiæ......	11	39 47.94	+0.03	**−33.81**	0 39	....	351 6 11.88	46.135 .090	.975 .960		9.4	+47 44	....
2	*γ* Cassiopeiæ......	11	51 20.25	−0.15	**33.94**	0 50	....	338 40 11.50	45.910 .890	.770 .690		23.4	60 11	....
3	*ξ* Andromedæ.....	11	17 6.38	+0.06	**33.86**	1 16	....	353 50 10.60	46.000 45.995	.875 .810		6.4	45 0	....
4	*δ* Cassiopeiæ......	11	19 56.86	−0.14	**−33.87**	1 19	....	339 8 11.48	44.705 .695	.560 .440		22.8	+59 43	....
5	B. D.+47° 429	9	25 13.13	+0.03	−33.88	1 24 39.28	−5.80	351 28 12.52	44.305	.190		9.0	+47 23 26.7	−35.4
6	B. D.+50° 299	9	27 2.59	0.00	33.88	1 26 28.71	6.00	348 32 12.30	45.305	.275		12.1	50 19 11.1	35.7
7	B. D.+44° 326	9	29 17.44	0.06	33.88	1 28 43.62	5.74	353 46 10.48	44.020	.990		6.5	45 5 32.0	34.5
8	Eros............	11	30 4.06	0.04	33.88	1 29 30.22	....	352 30 10.35	48.935	....		7.8	46 19 57.9	....
9	B. D.+47° 462	9	31 12.79	0.03	33.88	1 30 38.94	5.90	351 16 12.28	47.770	.720		9.1	47 34 20.0	34.8
10	B. D.+45° 394	9	32 4.94	+0.06	−33.88	1 31 31.12	−5.80	353 24 10.10	44.295	.265		6.9	+45 27 26.1	−34.3
11	B. D.+43° 337	9	33 19.44	+0.07	−33.88	1 32 45.63	−5.72	355 12 11.20	46....	.340		5.0	+43 38 43.3	−33.9
12	B. D.+51° 363	6	34 42.76	−0.01	33.88	1 34 8.87	6.19	347 30 11.40	42.640	....		11.5	51 22 1.9	35.2
13	B. D.+45° 422	9	37 3.75	+0.05	33.89	1 36 29.91	5.87	353 24 11.55	47.780	.800	C	7.0	45 32 44.6	34.2
14	B. D.+45° 424	7	37 44.08	0.06	33.89	1 37 10.25	5.87	353 24 11.65	46....	.320		6.9	45 26 45.1	33.8
15	B. D.+40° 364	9	41 16.63	+0.10	33.89	1 40 42.84	5.70	357 48 10.52	43.480	.415		2.2	41 3 37.3	32.6
16	B. D.+54° 392	9	45 22.97	−0.06	−33.89	1 44 49.02	−6.64	343 56 11.98	45.535	.470		17.2	+54 55 12.3	−34.6
17	B. D.+40° 390	9	47 28.72	+0.10	−33.89	1 46 54.93	−5.77	357 50 11.20	48....	.435		2.2	+41 0 0.3	−31.9
18	B. D.+40° 401	6	49 18.78	+0.10	33.89	1 48 44.99	5.79	357 42 9.95	43.920	.760		2.3	41 9 30.5	31.8
19	B. D.+53° 428	9	52 17.18	−0.05	33.89	1 51 43.24	6.68	344 44 11.75	43.705	.620		16.3	54 7 46.0	33.7
20	B. D.+39° 450	9	55 8.33	+0.11	33.89	1 54 34.55	5.78	359 22 11.40	43.915	....		0.6	39 29 26.6	30.8
21	B. D.+53° 439	9	56 19.06	−0.05	33.89	1 55 45.12	6.73	344 50 10.42	46.790	.680		16.2	54 0 48.3	33.3
22	B. D.+39° 457	9	58 24.92	+0.11	−33.89	1 57 51.14	−5.82	359 16 11.12	45.255	.130		0.7	+39 35 1.7	−30.5
23	B. D.+38° 402	7	59 23.03	+0.12	−33.89	1 58 49.26	−5.80	359 52 10.90	48.970	.905		0.0	+38 57 49.4	−30.3
24	B. D.+53° 451	9	0 43.87	−0.04	33.90	2 0 9.93	6.78	345 0 11.55	48.120	.005		16.0	53 50 21.5	32.7
25	B. D.+38° 416	9	3 28.78	+0.12	33.90	2 2 55.00	5.84	359 58 10.58	45.535	....		0.0	38 52 55.7	29.8
26	B. D.+53° 459	9	4 1.73	−0.04	33.90	2 3 27.79	6.84	345 0 11.70	42.950	.845		16.0	53 52 0.4	32.4
27	B. D.+53° 474	9	7 7.02	0.04	33.90	2 6 33.08	6.88	345 6 11.38	44.580	.495		15.9	53 45 29.2	31.9
28	B. D.+53° 497	9	12 15.75	−0.04	−33.90	2 11 41.81	−6.96	345 6 11.40	42.025	.910	B	16.0	+53 49 31.7	−31.3
29	B. D.+53° 513	9	15 35.62	−0.04	−33.90	2 15 1.68	−7.01	345 6 11.28	46.875	.810	B	15.9	+53 47 58.2	−30.9
30	B. D.+53° 519	9	18 1.21	0.04	33.90	2 17 27.27	7.04	345 6 11.42	47.120	.025		15.9	53 44 40.6	30.6
31	B. D.+53° 539	9	26 11.35	0.04	33.91	2 25 37.40	7.16	344 58 11.82	47.650	.605		16.0	53 52 29.6	29.5
32	B. D.+53° 547	9	29 15.88	−0.04	33.91	2 28 41.93	7.21	344 58 12.08	45.470	.355		16.0	53 53 11.8	29.1
33	B. D.+37° 589	9	32 49.91	+0.13	33.91	2 32 16.13	6.05	1 20 10.22	43.380	.315		1.5	37 31 35.8	26.1
34	B. D.+37° 596	....	.. ..	....	.....	2 35	....	1 2 11.18	46.210	:...		1.2	37 48 41.8	25.9
35	B. D.+41° 517	9	36 27.63	+0.09	−33.91	2 35 53.81	−6.32	357 6 11.42	44.530	.380		3.0	+41 45 17.9	−26.4
36	*η* Persei...........	11	44 5.51	−0.07	**−33.90**	2 43	....	343 22 11.70	45.315 .305	.135 .060		17.8	+55 29	....
37	*τ* Persei...........	11	47 51.13	0.02	**33.97**	2 47	....	346 30 11.98	44.030 .000	.855 .800		14.3	52 21	....
38	*γ* Persei...........	11	58 14.46	−0.04	**33.90**	2 57	....	345 44 11.08	45.150 .140	.000 .935		15.2	53 7	....
39	*β* Persei...........	11	2 19.85	+0.10	**−33.90**	3 1	....	358 16 11.28	46.620 .590	.445 .390		1.7	+40 34	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
12 0 38	29.89	33.1	32.1	1, 2, 3, 4, 36, 37, 38, 39.	Bisections at I, II, VI, VII.	1	38 56 8.2
1 20	29.87	33.5	32.8	6, 7, 13, 16.	Bisections at I, III.	2	8.8
1 50	29.865	33.5	33.1	8.	Bisection at IV.	3	7.6
2 22	29.855	34.3	34.0	10.	Bisections at IV, V.	4	9.1
2 48	29.85	34.5	34.1	11, 14, 17.	Bisection at V.	36	8.8
3 2	29.84	34.6	34.1	12, 20, 25.	Bisection at III.	37	8.8
				34.	Bisection at I.	38	9.3
						39	8.3

Note.

Dec. 12. Sky thick and stars difficult.

Adopted Equator Point.... 1–39 38° 56′ 8″.61

1900 DECEMBER 13. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*o* Cassiopeiæ......	11	39 48. 80	−0. 18	**−34.48**	0 39	....	351 6 12. 35	46. 180	. 050		8. 9	+47 44	....
									. 160	. 990				
2	γ Cassiopeiæ......	11	51 20. 92	0. 38	**34.40**	0 50	....	338 40 11. 82	45. 940	. 820		22. 4	60 11	....
									. 915	. 750				
3	ξ Andromedæ.....	11	17 7. 10	0. 12	**34.42**	1 16	....	353 50 9. 28	46. 240	. 090		6. 2	45 0	....
									. 200	. 995				
4	δ Cassiopeiæ......	9	19 57. 71	−0. 33	**−34.55**	1 19	....	339 8 12. 15	44. 710	. 530		22. 0	+59 43	....
									. 695	. 475				
5	B. D. +46° 373	9	25 28. 42	−0. 13	−34. 49	1 24 53. 80	−5. 77	351 48 11. 02	43. 765	. 665		8. 3	+47 3 39. 7	−35. 4
6	B. D. +50° 301	9	27 40. 80	0. 17	34. 50	1 27 6. 13	6. 00	348 28 12. 15	47. 155	. 070		11. 7	50 22 36. 9	35. 8
7	B. D. +45° 376	8	28 40. 91	0. 11	34. 50	1 28 6. 30	5. 74	353 30 10. 18	42. 815	. 775	C	6. 6	45 28 21. 5	34. 8
8	B. D. +45° 383	9	29 56. 34	−0. 11	−34. 50	1 29 21. 73	−5. 75	353 30 10. 32	40. 050	. 015	A	6. 5	+45 19 34. 5	−34. 6
9	Eros..............	11	30 55. 64	−0. 12	−34. 50	1 30 21. 02	....	352 56 10. 98	42. 890	. 865		7. 1	+45 55 54. 7	....
10	B. D. +44° 337	9	33 1. 00	0. 10	34. 50	1 32 26. 40	−5. 78	353 42 10. 62	43. 065	. 975		6. 3	45 9 51. 5	−34. 3
11	B. D. +43° 343	9	34 1. 39	0. 09	34. 50	1 33 26. 80	5. 73	354 58 10. 58	45. 010	. 930		5. 0	43 53 12. 8	33. 9
12	B. D. +44° 352	9	36 31. 33	0. 10	34. 51	1 35 56. 72	5. 82	353 46 10. 15	46. 225	. 135		6. 2	45 4 51. 3	33. 9
13	B. D. +44° 354	9	37 51. 63	−0. 10	−34. 51	1 37 17. 02	−5. 83	354 2 10. 15	43. 765	. 630		6. 0	+44 49 38. 7	−33. 8
14	B. D. +41° 347	9	42 25. 43	−0. 06	−34. 52	1 41 50. 85	−5. 74	356 54 11. 10	48. 845	. 750		3. 0	+41 55 56. 9	−32. 7
15	B. D. +40° 384	9	46 17. 72	0. 05	34. 52	1 45 43. 15	5. 74	357 52 10. 95	48. 405	. 305		2. 1	40 58 4. 7	32. 1
16	B. D. +40° 400	9	49 7. 81	0. 04	34. 52	1 48 33. 25	5. 75	358 32 10. 72	48. 755	. 625	C	1. 5	40 24 23. 8	31. 7
17	B. D. +40° 406	9	51 54. 36	0. 04	34. 53	1 51 19. 79	5. 77	358 32 10. 82	42. 075	. 980	A	1. 4	40 16 50. 7	31. 4
18	B. D. +40° 412	9	53 1. 16	−0. 04	−34. 53	1 52 26. 59	−5. 79	358 32 10. 65	43. 415	. 340	C	1. 5	+40 26 5. 8	−31. 3
19	B. D. +37° 452	9	54 58. 89	−0. 01	−34. 53	1 54 24. 35	−5. 71	0 46 11. 12	48. 375	. 265	B	0. 8	+38 7 15. 4	−30. 6
20	B. D. +37° 465	9	57 18. 50	0. 02	34. 54	1 56 43. 94	5. 73	0 46 11. 02	47. 890	. 835		0. 9	38 4 12. 2	30. 4
21	B. D. +37° 468	9	57 46. 67	0. 02	34. 54	1 57 12. 11	5. 74	0 46 11. 10	48. 630	. 540	C	0. 8	38 10 23. 2	30 4
22	B. D. +37° 488	9	3 34. 78	−0. 01	−34. 54	2 3 0. 23	−5. 79	0 46 11. 10	49. 020	. 940		0. 9	+38 3 49. 5	−29. 7
23	6 Persei	10	7 38. 45	−0. 14	**−34.61**	2 7	....	348 16 11. 18	41. 050	. 880		12. 0	+50 36	....
									. 035	. 785				
24	B. D. +37° 596	9	35 34. 94	+0. 02	−34. 59	2 35 0. 37	−6. 09	1 2 9. 72	46. 450	. 345		1. 1	+37 48 40. 2	−25. 9
25	B. D. +40° 581	8	38 33. 88	0. 00	34. 59	2 37 59. 29	6. 26	358 36 10. 65	43. 585	. 605	C	1. 5	40 22 1. 6	26. 0
26	B. D. + 39° 628	9	40 18. 90	0. 00	34. 59	2 39 44. 31	6. 26	358 36 10. 62	45. 155	. 055	A	1. 3	40 11 53. 0	25. 8
27	B. D. +41° 538	9	41 23. 67	−0. 01	-34. 59	2 40 49. 07	6. 37	357 6 10. 05	43. 230	. 235		2. 9	+41 45 45. 7	−25. 9
28	B. D. +41° 541	9	42 7. 37	−0. 01	−34. 60	2 41 32. 76	-6. 36	357 24 10. 62	44. 520	. 510		2. 6	+41 27 19. 1	−25. 7
29	B. D. +41° 543	9	42 53. 64	0. 01	34. 60	2 42 19. 03	6. 40	356 50 10. 40	47. 965	. 915		3. 1	42 0 14. 2	25. 7
30	B. D. +41° 550	9	44 48. 45	0. 01	34. 60	2 44 13. 84	6. 38	357 18 11. 28	47. 895	. 800		2. 6	41 32 14. 6	25. 4
31	B. D. + 41° 556	9	46 35. 82	-0. 01	−34. 60	2 46 1. 21	−6. 41	357 18 11. 35	43. 140	. 035	B	2. 7	+41 36 59. 0	−25. 2
32	τ Persei	11	47 51. 88	−0. 12	**−34.62**	2 47	....	346 30 11. 58	43. ...	. 940		13. 9	+52 21	....
									....	. 860				
33	γ Persei	11	58 15. 22	−0. 12	**34.58**	2 57	....	345 44 11. 52	45. 200	. 035		14. 7	53 7	....
									. 215	. 965				
34	β Persei	11	2 20. 62	+0. 01	**−34.58**	3 1	....	358 16 10. 58	46. 735	. 550		1. 7	+40 34	....
									. 720	. 490				

1900 DECEMBER 14. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
35	*o* Cassiopeiæ......	11	39 49. 37	−0. 03	**−35.22**	0 39	....	351 6 11. 95	46. 180	. 020		9. 6	+47 44	....
									. 190	. 950				
36	γ Cassiopeiæ......	10	51 21. 50	−0. 19	**35.20**	0 50	....	338 40 10. 62	46. 035	. 905		24. 0	60 11	....
									. 030	. 805				
37	ξ Andromedæ.....	11	17 7. 66	0. 00	**−35.12**	1 16	....	353 50 10. 82	46. 065	. 945		6. 6	+45 0	....
									. 060	. 870				

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
13 0 37	29. 65	48. 5	50. 0
1 23	29. 67	47. 0	48. 5
1 50	29. 675	46. 5	47. 7
2 23	29. 68	46. 0	47. 5
2 49	29. 69	45. 7	46. 9
3 2	29. 69	45. 5	46. 8
14 0 38	30. 05	27. 0	24. 3

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 3, 4, 23, 33, 34, 35, 36, 37.	Bisections at I, II, VI, VII.
20, 26, 27.	Bisections at I, III.
32.	Bisections at VI, VII.

Notes.

Dec. 13. Seeing fair. Stars somewhat unsteady and diffuse.
14. Seeing very good.

Adopted Equator Point..... 1–34 38° 56′ 10″. 60

No.	Eq. Points.
	° ′ ″
1	38 56 10. 3
2	11. 0
3	10. 6
4	10. 7
23	10. 8
32	10. 3
33	11. 2
34	9. 9
35	9. 1
36	9. 9
37	8. 9

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	δ Cassiopeiæ......	11	19 58.12	−0.18	**−35.18**	1 19	....	339 8 11.48	44.700 .715	.600 .520		23.4	+59 43	....
2	B. D.+48° 455	9	26 7.37	−0.03	−35.17	1 25 32.17	−5.84	350 34 10.88	46.200	.125		10.2	+48 16 53.7	−35.6
3	B. D.+48° 470	9	29 1.53	0.04	35.17	1 28 26.32	5.92	349 48 10.58	43.910	.870		11.0	49 3 39.4	35.5
4	B. D.+44° 329	8	30 1.32	0.00	35.17	1 29 26.15	5.69	354 26 10.68	44.350	.285		5.9	44 25 26.0	34.5
5	B. D.+47° 460	9	31 1.46	−0.03	35.17	1 30 26.26	5.90	350 38 10.02	44.965	.980		10.1	48 13 18.2	35.2
6	Eros............	11	31 53.18	0.00	35.17	1 31 18.01	....	353 20 9.65	43.840	.770		7.1	45 31 37.0	....
7	B. D.+43° 337	10	33 20.61	+0.01	−35.17	1 32 45.45	−5.70	355 12 9.95	46.580	.570		5.1	+43 38 42.5	−34.0
8	B. D.+41° 321	9	34 22.27	+0.02	−35.17	1 33 47.12	−5.64	356 36 9.45	47.475	.390		3.6	+42 14 24.2	−33.6
9	B. D.+42° 351	9	36 38.85	0.02	35.17	1 36 3.70	5.68	356 26 9.88	44.540	.525	A	3.7	42 22 5.9	33.4
10	B. D.+42° 354	9	36 56.85	0.02	35.17	1 36 21.70	5.69	356 26 10.02	45.265	.170	C	3.9	42 31 30.8	33.4
11	B. D.+42° 360	9	38 46.30	0.02	35.17	1 38 11.15	5.72	356 12 10.38	47.575	.525	C	4.1	42 44 47.4	33.3
12	B. D.+42° 373	9	42 6.24	0.02	35.17	1 41 31.09	5.76	356 12 10.35	46.670	....	A	3.9	42 35 24.2	33.0
13	B. D.+42° 375	9	42 36.69	+0.02	−35.17	1 42 1.54	−5.77	356 12 10.45	42.215	.170	B	4.1	+42 43 17.2	−32.9
14	B. D.+41° 352	8	43 36.47	+0.02	−35.17	1 43 1.32	−5.76	356 38 9.78	45.200	.050		3.5	+42 13 6.3	−32.7
15	B. D.+42° 390	9	46 2.79	0.02	35.17	1 45 27.64	5.79	356 38 9.80	44.230	.145	B	3.6	42 16 39.1	32.5
16	B. D.+41° 364	9	47 51.17	0.03	35.17	1 47 16.03	5.80	356 48 9.65	46.155	.090		3.4	42 2 48.9	32.3
17	B. D.+39° 431	9	49 18.43	0.04	35.17	1 48 43.30	5.73	358 40 9.15	47.435	.380		1.3	40 10 22.6	31.8
18	B. D.+38° 392	9	55 27.74	0.05	35 17	1 54 52.62	5.75	359 42 9.72	45.400	.370		0.2	39 9 0.9	30.9
19	B. D.+38° 391	9	55 29.44	+0.05	−35.17	1 54 54.32	−5.75	359 42 9.60	48.870	.765		1.2	+39 7 52.4	−30.9
20	B. D.+53° 521	9	18 11.07	−0.09	−35.17	2 17 35.81	−6.97	345 32 10.52	43.980	.940		15.9	+53 19 41.9	−30.8
21	B. D.+52° 587	9	23 34.74	0.08	35.17	2 22 59.49	6.98	346 14 10.45	45.020	.930		15.1	52 37 21.7	30.0
22	B. D.+51° 587	9	25 39.86	0.07	35.17	2 25 4.62	6.94	346 58 11.45	48.305	.245		14.2	51 52 16.6	29.6
23	B. D.+51° 594	9	28 21.99	0.07	35.17	2 27 46.75	6.95	347 18 10.30	47.870	.765		13.8	51 32 26.1	29.2
24	B. D.+51° 599	9	30 38.04	0.07	35.17	2 30 2.80	6.98	347 18 10.55	49.310	.240		13.8	51 31 57.9	28.9
25	B. D.+51° 604	9	32 19.73	−0.07	−35.18	2 31 44.48	−7.01	347 18 10.58	47.085	.020	C	14.0	+51 39 6.6	−28.7
26	B. D.+51° 618	9	36 21.12	−0.07	−35.18	2 35 45.87	−7.04	347 18 10.45	48.460	.395	A	13.8	+51 28 59.5	−28.2
27	B. D.+49° 752	9	37 28.23	0.05	35.18	2 36 53.00	6.92	348 52 9.82	49.040	.015		12.1	49 58 1.7	27.8
28	B. D.+50° 617	8	38 6.52	0.06	35.18	2 37 31.28	7.00	348 2 10.62	47.830	.760		13.0	50 48 25.1	27.8
29	B. D.+51° 626	9	40 35.72	0.07	35.18	2 40 0.47	7.13	347 6 10.92	48.280	.230	B	14.1	51 47 31.6	27.6
30	B. D.+51° 628	9	40 48.85	0.07	35.18	2 40 13.60	7.13	347 6 10.95	48.670	.560		14.1	51 44 8.6	27.6
31	B. D.+49° 773	7	41 47.40	−0.05	−35.18	2 41 12.17	−6.95	349 14 10.38	46.560	.510	B	11.7	+49 39 59.7	−27.2
32	B. D.+49° 782	9	43 41.19	−0.05	−35.18	2 43 5.96	−6.96	349 14 10.32	48.035	.990		11.7	+49 36 20.2	−26.9
33	B. D.+45° 665	9	44 42.42	0.00	35.18	2 44 7.24	6.64	353 22 10.62	45.590	.550	A	7.0	45 25 47.0	26.1
34	B. D.+45° 669	9	45 37.61	−0.01	35.18	2 45 2.42	6.66	353 22 10.50	47.500	.465	C	7.2	45 34 51.7	26.0
35	B. D.+42° 650	9	49 8.44	+0.02	35.18	2 48 33.28	6.50	356 2 10.35	46.315	.300		4.2	42 48 46.5	25.1
36	B. D.+45° 679	9	49 56.90	0.00	−35.18	2 49 21.72	−6.70	353 24 10.12	47.505	.445		7.1	+45 26 26.2	−25.4
37	γ Persei	11	58 15 76	−0.09	**−35.16**	2 57	....	345 44 10.90	45.195 .190	.040 .970		15.7	+53 7	....
38	β Persei	11	2 21.17	+0.04	**35.17**	3 1	....	358 16 10.52	46.670 .680	.540 .500		1.8	40 34	....
39	α Persei	11	17 53.37	−0.05	**35.19**	3 17	....	349 20 10.50	46. ... .960	.825 .760		11.6	49 30	....
40	2 H. Camelop......	10	21 42.10	−0.18	**−35.19**	3 21	....	339 16 10.95	43.785 790	.645 .560		23.4	+59 35	....

1900 DECEMBER 19. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

41	o Cassiopeiæ......	11	39 53.71	0.00	**−39.69**	0 39	....	351 6 11.52	46.030 .020	.920 .845		9.0	+47 44	....
42	γ Cassiopeiæ......	11	51 26.00	−0.15	**−39.89**	0 50	....	338 40 11.58	45.730 710	.565 .495		22.5	+60 11	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
14 1 19	30.05	25.8	23.5	1, 37, 38, 40, 41, 42.	Bisections at I, II, VI, VII.	1	38 56 9.4
1 51	30.055	25.0	23.0	3, 4, 9, 18, 29, 35.	Bisections at I, III.	37	9.7
2 18	30.06	24.2	22.4	5, 7.	Bisections at II, III.	38	9.3
2 50	30.06	23.8	22.0	10, 14, 19, 30, 31.	Bisections at V, VII.	39	9.5
3 24	30.06	23.5	21.3	12.	Bisection at III.	40	9.4
19 0 37	29.885	48.5	52.7	28, 33.	Bisections at IV, V.	41	6.9
				39.	Bisections at II, VI, VII.	42	6.7
					Adopted Equator Point.... 1–40 38° 56′ 9″.40		

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	ξ Andromedæ. ...	11	17 12.25	+0.03	**−39.82**	1 16	....	353 50 9.85	45.995 .980	.840 .775		6.2	+45 0	....
2	δ Cassiopeiæ	9	20 2.77	−0.14	**−39.95**	1 19	....	339 8 10.65	44.600 .595	.390 .335		22.0	+59 43	....
3	B. D.+51° 317	9	25 11.97	- 0.03	−39.84	1 24 32.10	−5.92	347 16 10.68	44.995	.820		13.0	+51 35 18.5	−36.8
4	B. D.+51° 323	9	26 32.48	0.04	39.84	1 25 52.60	5.97	346 52 10.22	39.235	.160	A	13.4	51 57 54.1	36.7
5	B. D.+51° 331	8	28 44.64	0.03	39.84	1 28 4.77	5.97	347 30	....	....		....	51 19	....
6	B. D.+51° 334	9	29 19.78	0.04	39.84	1 28 39.90	6.00	347 12	....	....		....	51 39	....
7	B. D.+51° 338	9	30 8.54	−0.04	−39.84	1 29 28.66	−6.01	347 12 10.98	43.530	.400		13.1	+51 39 44.1	−36.4
8	B. D.+52° 387	8	31 25.56	−0.04	−39.84	1 30 45.68	−6.09	346 14 10.32	48.040	.965		14.1	+52 36 18.7	−36.4
9	B. D.+52° 393	9	33 17.97	0.05	39.84	1 32 38.08	6.13	346 14 10.52	43.010	.985	C	14.3	52 44 22.3	36.2
10	B. D.+53° 363	10	34 37.80	0.05	39.84	1 33 57.91	6.20	345 28 10.35	38.195	.020	A	15.0	53 22 16.2	36.3
11	B. D.+52° 406	9	36 9.49	−0.05	39.84	1 35 29.60	−6.19	345 58 11.00	46.490	.380		14.4	52 52 50.4	−36.0
12	Eros	11	38 12.30	+0.04	−39.84	1 37 32.50	....	355 24 9.00	44.625 .615	.560 .475		4.6	+43 27 18.0	....
13	B. D.+52° 433	9	40 29.63	−0.05	−39.84	1 39 49.74	−6.28	345 44 10.60	46.140	.080		14.7	+53 6 57.3	−35.6
14	B. D.+54° 383	9	43 26.10	0.07	39.84	1 42 46.19	6.45	344 12 10.10	45.440	.380		16.4	54 39 12.9	35.6
15	B. D.+54° 388	9	44 44.29	0.07	39.84	1 44 4.38	6.48	344 12 10.42	41.075	.025	B	16.5	54 43 49.3	35.5
16	B. D.+54° 396	9	46 11.59	0 07	39.84	1 45 31.68	6.50	344 12 10.40	43.840	.785		16.4	54 39 43.3	35.4
17	B. D.+54° 408	9	47 57.58	0.08	39.84	1 47 17.66	6.57	343 44 11.35	46.510	.360		16.9	55 6 52.6	35.2
18	B. D.+53° 419	9	49 12.30	−0.06	−39.84	1 48 32.40	−6.48	345 8 11.25	47.880	.765		15.4	+53 42 24.6	−34.9
19	B. D.+54° 444	9	57 13.56	−0.07	−39.84	1 56 33.65	−6.70	344 6 11.32	44.255	.170		16.5	+54 45 34.9	−34.2
20	B. D.+54° 469	9	3 56.02	0.07	39.84	2 3 16.11	6.84	343 50 11.02	44.960	.865		16.8	55 1 22.2	33.5
21	B. D.+53° 470	9	5 46.47	0.06	39.84	2 5 6.57	6.78	344 46 11.80	44.975	.910		15.8	54 5 19.8	33.1
22	B. D.+53° 486	9	8 51.80	0.06	39.84	2 8 11.90	6.83	344 46 11.90	47.885	.800		15.8	54 4 24.1	32.7
23	B. D.+54° 511	9	12 22.74	0.07	39.84	2 11 42.83	6.98	343 46 10 12	45.470	.350		16.9	55 5 13.6	32.5
24	B. D.+54° 525	9	14 50.99	−0.07	−39.84	2 14 11.08	−7.01	343 54 11.12	44.685	.605		16.8	+54 57 27.2	−32.2
25	B. D.+54° 535	9	17 41.32	−0.07	−39.84	2 17 1.41	−7.05	343 54 11.12	41.950	.940	A	16.8	+54 55 5.3	−31.8
26	B. D.+52° 576	9	18 22.28	0.05	39.84	2 17 42.39	6.88	345 52 9.80	42.510	.435		14.7	53 0 8.2	31.4
27	B. D.+52° 580	9	19 50.09	0 05	39.84	2 19 10.20	6.89	345 52 10.02	46.690	.615	A	14.6	52 55 33.0	31.2
28	B. D.+52° 581	9	21 17.49	0.05	39.84	2 20 37.60	6.93	345 52 10.25	42.050	.950	B	14.7	53 3 30.1	31.0
29	B. D.+52° 585	9	22 41.79	−0.05	−39.84	2 22 1.90	−6.95	345 52 10.25	43.865	.815	C	14.8	+53 6 7.6	−30.9
30	B. D.+54° 565	9	25 19.87	−0.07	−39.84	2 24 39.96	−7.12	344 24 11.65	44.270	.170		16.3	+54 27 34.4	−30.8
31	B. D.+53° 539	9	26 17.25	0.06	39.84	2 25 37.35	7.08	344 58 11.85	47.475	.410		15.6	53 52 31.4	30.6
32	B. D.+52° 597	9	28 10.04	0.05	39.84	2 27 30.15	7.02	345 52 9.98	47.920	.850		14.6	52 58 24.2	30.2
33	B. D.+53° 547	9	29 21.89	0.06	39.84	2 28 41.99	7.12	344 58 11.15	45.390	.285		15.6	53 53 12.9	30.2
34	B. D.+52° 602	9	31 39.59	−0.04	−39.84	2 30 59.71	−7.01	346 28 10.60	45.580	.505		14.0	+52 23 9.0	−29.6
35	B. D.+51° 604	9	32 24.44	−0.04	−39.84	2 31 44.56	−6.96	347 12 11.40	45.525	.450		13.2	+51 39 7.3	−29.4
36	B. D.+52° 609	9	34 10.97	0.04	39.84	2 33 31.09	7.05	346 28 11.65	46.310	.230		14.0	52 22 52.9	29.3
37	B. D.+52° 617	9	37 6.78	−0.04	39.84	2 36 26.90	7.08	346 30 11.42	48.200	.125		13.9	52 20 16.8	28.9
38	B. D.+43° 566	9	38 20.60	+0.04	39.84	2 37 40.80	6.43	354 58 9.25	46.335	.260		5.1	43 52 45.9	27.3
39	B. D.+47° 692	9	39 45.12	+0.01	−39.84	2 39 5.29	−6.72	351 8 11.00	43.465	.365		9.1	+47 43 43.4	−27.8
40	B. D.+47° 698	9	42 6.94	0.00	−39.84	2 41 27.10	−6.75	351 8 11.18	42.730	.700	B	9.1	+47 47 11.5	−27.5
41	B. D.+42° 633	8	42 59.13	+0.05	39.84	2 42 19.34	6.38	356 32 9.80	44.350	.305		3.5	42 19 22.6	26.4
42	B. D.+42° 637	8	44 13.92	0.05	39.84	2 43 34.13	6.39	356 32 10.02	41.560	.525	B	3.5	42 23 29.7	26.2
43	B. D.+42° 638	9	44 52.69	0.05	39.84	2 44 12.90	6.43	355 56 9.25	47.285	.185		4.1	42 54 27.0	26.2
44	B. D.+46° 648	9	45 46.53	+0.02	−39.84	2 45 6.71	−6.69	352 24 10.40	48.100	.065		7.7	+46 26 12.9	−26.8
45	τ Persei	11	47 56.99	−0.04	**−39.87**	2 47	......	346 30 11.08	43.960 .935	.785 .695		14.0	+52 21	....
46	γ Persei	11	58 20.36	−0.05	**39.84**	2 57	....	345 44 11.62	44.960 .955	.810 .725		14.7	53 7	....
47	β Persei	11	2 25.74	+0.07	**39.79**	3 1	....	358 16 10.58	46.605 .580	.420 .330		1.7	40 34	....
48	α Persei	11	17 57.99	−0.01	**−39.87**	3 17	....	349 20 10.42	46.840 .855	.665 .600		10.8	+49 30	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
19 1 17	29.89	47.5	50.5	1, 2, 12, 45, 46, 47, 48.	Bisections at I, II, VI, VIII.	1	38 56 6.9
1 51	29.89	46.5	48.6	5, 34.	Bisections at I, III.	2	7.6
2 23	29.89	45.8	46.0	7, 8.	Bisections at V, VII.	45	7.8
2 46	29.89	45.4	46.9	9, 10, 15, 31, 44.	Bisections at IV, V.	46	7.7
3 15	29.89	45.6	49.9	25, 41.	Bisections at II, III.	47	7.8
				40, 42.	Bisections at I, II.	48	8.3

Note.

Dec. 19. Very good seeing. Better than average.

Adopted Equator Point.... 1–48 {1h.035 / 3 .028} 38° 56′ 7″.02 / 7 .90

1900 DECEMBER 20. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*o* Cassiopeiæ......	11	39 54.40	+0.03	**−40.48**	0 39	....	351 6 11.20	46.080 .055	.880 .800		9.2	+47 44	....
2	*γ* Cassiopeiæ......	11	51 26.50	−0.11	**40.45**	0 50	....	338 40 10.62	45.750 .775	.655 .570		23.0	60 11	....
3	*ξ* Andromedæ.....	11	17 12.85	+0.06	**−40.46**	1 16	....	353 50 9.60	45.970 .970	....		6.3	+45 0	....
4	B. D.+49° 741	9	35 5.72	+0.02	−40.44	2 34 25.30	−6.80	349 16 11.02	44.510	.490		11.2	+49 35 24.9	−28.8
5	B. D.+49° 743	6	35 12.38	0.02	40.44	2 34 31.96	6.81	349 16 11.25	44.495	.415	C	11.3	49 41 48.9	28.8
6	B. D.+42° 610	9	37 21.59	0.08	40.44	2 36 41.23	6.33	356 16 8.82	43.820	.785		3.8	42 35 32.4	27.2
7	B. D.+40° 577	9	38 7.74	0.09	40.44	2 37 27.39	6.25	357 46 10.45	45.930	.865		2.2	41 4 48.6	26.8
8	B. D.+40° 590	9	40 34.25	+0.09	−40.44	2 39 53.90	−6.27	357 46 10.62	42.020	.980	A	2.2	+41 2 50.0	−26.5
9	B. D.+45° 660	9	41 21.07	+0.05	−40.44	2 40 40.68	−6.56	353 20 10.88	47.940	.875		6.9	+45 30 14.3	−27.3
10	B. D.+47° 700	9	42 31.12	0.03	40.44	2 41 50.71	6.77	350 48 10.22	46.895	.840		9.6	48 2 37.6	27.6
11	B. D.+44° 582	9	43 51.81	0.06	40.44	2 43 11.43	6.56	353 52 9.72	43.270	.250		6.3	44 59 44.0	26.8
12	B. D.+45° 667	9	44 56.63	0.05	40.44	2 44 16.24	6.62	353 10 9.48	48.890	.840		7.0	45 39 57.4	26.8
13	B. D.+47° 720	9	46 24.60	+0.04	−40.44	2 45 44.20	−6.77	351 20 9.82	47.250	.220		9.0	+47 30 30.5	−27.0
14	*τ* Persei	10	47 57.55	−0.02	**−40.46**	2 47	....	346 30 11.30	43.915 .875	.730 .640		14.2	+52 21	....
15	*γ* Persei	11	58 20.90	−0.02	**40.42**	2 57	....	345 44 10.70	44.975 .970	.835 .790		15.1	53 7	....
16	*β* Persei	11	2 26.34	+0.09	**40.41**	3 1	....	358 16 9.62	46.600 .585	.420 .390		1.7	40 34	....
17	*α* Persei	11	17 58.55	+0.02	**−40.46**	3 17	....	349 20 10.38	46.765 .730	.630 .530		11.1	+49 30	....

1900 DECEMBER 21. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
18	*o* Cassiopeiæ......	11	39 54.88	+0.12	**−41.02**	0 39	....	351 6 11.28	46.030 45.990	.850 .780		9.3	+47 44	....
19	*γ* Cassiopeiæ......	11	51 27.11	−0.01	**41.20**	0 50	....	338 40 11.22	45.810 .700	.605 .495		23.2	60 11	....
20	*ξ* Andromedæ.....	11	17 13.33	+0.15	**41.04**	1 16	....	353 50 10.88	45.900 .895	.715 .660		6.4	45 0	....
21	*δ* Cassiopeiæ......	11	20 3.77	−0.01	**−41.18**	1 19	....	339 8 11.30	44.515 .535	.375 .270		22.7	+59 43	....
22	B. D.+49° 401	9	25 24.62	+0.10	−41.10	1 24 43.62	−5.81	348 44 11.12	47.390	.345	B	11.9	+50 9 43.5	−36.6
23	B. D.+49° 400	9	25 25.21	0.10	41.10	1 24 44.21	5.80	348 44 11.22	47.125	.995		11.8	50 6 32.8	36.6
24	B. D.+50° 298	9	26 59.61	0.10	41.10	1 26 18.61	5.86	348 12 11.45	44.210	.115		12.4	50 39 28.7	36.6
25	B. D.+51° 334	9	29 20.88	0.09	41.10	1 28 39.87	5.96	347 12 11.38	45.530	.485		13.5	51 39 6.0	36.6
26	B. D.+51° 339	9	31 11.43	+0.09	−41.10	1 30 30.42	−5.96	347 36 11.15	46.245	....		13.1	+51 14 52.4	−36.3
27	B. D.+51° 344	9	31 56.62	+0.08	−41.10	1 31 15.60	−6.03	346 48 11.48	40.730	.710	B	14.0	+52 7 51.1	−36.4
28	B. D.+51° 360	9	34 21.61	0.08	41.10	1 33 40.59	6.07	346 48 11.52	47.370	.360	C	14.0	52 8 57.5	36.2
29	B. D.+51° 364	9	34 57.54	0.08	41.10	1 34 16.52	6.08	346 48 11.45	49.150	.055		13.9	52 1 57.4	36.1
30	B. D.+45° 422	9	37 10.71	0.14	41.10	1 36 29.75	5.74	353 24 10.80	47.750	.730	C	6.9	45 32 44.0	34.5
31	B. D.+45° 424	9	37 51.04	+0.14	−41.10	1 37 10.08	−5.74	353 24 10.75	46.320	.220		6.8	+45 26 45.3	−34.5
32	Eros	11	41 22.92	+0.16	−41.10	1 40 41.98	....	356 14 10.62	46.670 .635	.560 .420		3.9	+42 36 36.4	....
33	B. D.+54° 392	9	45 29.74	0.05	41.10	1 44 48.69	−6.47	343 56 11.75	45.370	.305		17.1	54 55 12.5	−35.7
34	B. D.+53° 419	9	49 13.30	0.07	41.10	1 48 32.27	6.44	345 8 11.20	47.895	.780		15.8	53 42 23.8	35.1
35	B. D.+54° 424	9	52 0.68	+0.05	−41.10	1 51 19.63	−6.58	343 58 11.85	44.590	.470		17.1	+54 53 27.9	−35.0

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
20 0 37	29.74	41.8	39.5
1 15	29.75	39.4	38.0
2 32	29.76	36.7	35.2
3 19	29.75	35.5	34.6
21 0 38	29.65	33.4	32.6
1 20	29.66	32.8	32.4
1 50	29.67	32.0	32.1

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 14, 15, 16, 17, 18, 19, 20, 21, 32.	Bisections at I, II, VI, VII.
3, 8.	Bisections at I, II.
4, 22, 28, 30.	Bisections at I, III.
5, 23, 24.	Bisections at V, VII
6.	Bisections at III, IV
26.	Bisection at III.
27.	Bisections at IV, V.

Notes.

Dec. 20. Fairly good seeing. Stars somewhat diffuse.
21. Seeing good at beginning, but only fair at end.

Adopted Equator Point.... 1–17 { $0^{h}.940$ 38° 56′ 6″.33
{ 3 .028 6 .92
18–35 6 .42

No.	Eq. Points.
	° ′ ″
1	38 56 6.4
2	6.5
3	6.1
14	6.9
15	7.0
16	7.2
17	6.6
18	5.5
19	6.2
20	5.8
21	6.7

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+55° 464	9	53 38.72	+0.05	−41.10	1 52 57.67	−6.65	343 32 11.10	47.620	.535		17.6	+55 18 30.7	−34.9
2	B. D.+53° 439	9	56 25.98	0.06	41.10	1 55 44.94	6.58	344 50 11.62	46.545	.465		16.1	54 0 49.2	34.4
3	B. D.+55° 484	9	57 51.91	0.05	41.10	1 57 10.86	6.72	343 40 9.92	45.065	.045	C	17.6	55 17 46.2	34.4
4	B. D.+54° 453	9	59 5.77	0.05	41.10	1 58 24.72	6.73	343 40 9.75	41.775	.650	A	17.4	55 9 9.6	34.3
5	B. D.+53° 453	9	2 24.27	0.06	41.10	2 1 43.23	6.70	344 44 10.62	42.365	.290		16.3	54 8 10.5	33.7
6	B. D.+55° 527	9	3 36.15	+0.05	−41.10	2 2 55.10	−6.83	343 28 11.05	45.090	.995		17.7	+55 23 19.5	−33.8
7	B. D.+55° 551	9	8 54.46	+0.05	−41.10	2 8 13.41	−6.91	343 40 11.42	46.340	....	C	17.6	+55 17 20.6	−33.2
8	B. D.+54° 500	9	9 22.44	0.05	41.10	2 8 41.39	6.90	343 40 11.55	44.535	.460	A	17.4	55 8 14.3	33.1
9	B. D.+53° 494	9	11 54.83	0.06	41.10	2 11 13.79	6.84	344 50 10.78	47.350	.240		16.1	54 0 34.7	32.6
10	B. D.+52° 563	8	12 53.97	0.07	41.10	2 12 12.94	6.77	345 44 11.65	44.735	.655		15.1	53 7 22.9	32.3
11	B. D.+53° 507	9	15 8.09	0.06	41.10	2 14 27.05	6.90	344 48 10.92	44.190	.065		16.2	54 3 35.6	32.2
12	B. D.+54° 530	8	16 32.32	+0.06	−41.10	2 15 51.28	−6.97	344 14 11.60	43.255	.105		16.8	+54 37 53.7	−32.2
13	B. D.+53° 521	9	18 16.89	+0.07	−41.10	2 17 35.86	−6.87	345 32 10.50	43.800	.680		15.4	+53 19 42.7	−31.7
14	B. D.+53° 525	9	20 18.35	0.07	41.10	2 19 37.32	6.94	345 10 11.05	46.140	.000		15.8	53 40 57.8	31.5
15	B. D.+52° 587	9	23 40.47	0.08	41.10	2 22 59.45	6.89	346 14 10.62	44.755	.625		14.6	52 37 23.5	30.9
16	B. D.+52° 592	9	25 51.21	0.08	41.10	2 25 10.19	6.90	346 26 11.62	49.205	.130		14.3	52 23 57.4	30.6
17	B. D.+53° 540	9	26 37.49	0.07	41.10	2 25 56.46	7.02	345 18 11.50	47.195	.100		15.6	53 32 36.5	30.7
18	B. D.+52° 595	9	28 4.87	+0.08	−41.10	2 27 23.85	−6.94	346 26 12.00	49.235	.135		14.3	+52 23 55.7	−30.3
19	B. D.+53° 546	9	29 20.03	+0.07	−41.10	2 28 39.00	−7.04	345 36 10.52	44.665	.505		15.3	+53 15 26.4	−30.3
20	B. D.+51° 598	9	30 3.71	0.08	41.10	2 29 22.69	6.93	346 48 11.70	44.290	.115		14.0	52 3 29.3	30.0
21	B. D.+49° 733	9	33 37.09	0.10	41.10	2 32 56.09	6.81	348 46 11.25	43.605	.510		11.8	50 5 41.8	29.2
22	B. D.+49° 752	9	37 33.84	0.10	41.10	2 36 52.84	6.85	348 54 11.38	42.530	.450		11.7	49 58 2.1	28.7
23	B. D.+46° 622	9	38 41.09	+0.13	−41.10	2 38 0.12	−6.59	352 26 9.15	43.720	.565		7.9	+46 25 38.4	−27.9
24	B. D.+46° 628	9	40 10.61	+0.13	−41.10	2 39 29.64	−6.63	352 2 11.20	45.065	.970		8.3	+46 49 10.4	−27.8
25	B. D.+46° 638	9	42 38.28	0.13	41.10	2 41 57.31	6.64	352 18 10.45	44.890	.795		8.1	46 33 14.3	27.4
26	B. D.+45° 662	9	43 42.58	0.14	41.10	2 43 1.62	6.61	352 52 10.50	43.610	.530		7.4	45 59 38.0	27.2
27	B. D.+44° 591	9	45 54.28	0.15	41.10	2 45 13.33	6.54	354 20 10.70	39.930	.905	C	6.0	44 39 13.2	26.6
28	B. D.+44° 593	9	46 4.30	+0.15	−41.10	2 45 23.35	−6.54	354 20 10.90	40.415	.290	A	5.8	+44 29 21.0	−26.6
29	τ Persei	11	47 58.10	+0.08	**−41.12**	2 47	....	346 30 11.18	43.	.745 .670		14.3	+52 21	....
30	B. D.+44° 598	9	50 16.46	0.15	41.10	2 49 35.51	−6.59	354 16 10.90	45.360	.240		5.9	44 35 2.9	−26.0
31	γ Persei	11	58 21.50	0.07	**41.12**	2 57	....	345 44 11.10	44.985 .970	.835 .735		15.2	53 7	....
32	β Persei	11	2 26.91	0.18	**41.08**	3 1	....	358 16 10.10	46.545 .540	.365 .265		1.7	40 34	....
33	α Persei	11	17 59.07	+0.11	**−41.08**	3 17	....	349 20 10.70	46.705 .690	.590 .525		11.2	+49 30	....

1900 DECEMBER 26. CLAMP EAST.

KING, OBSERVER. BOEGER, ASSISTANT.

34	ο Cassiopeiæ	11	39 56.77	−0.04	**−42.85**	0 39	....	351 6 10.92	46.075 .055	.890 .820		9.4	+47 44	....
35	γ Cassiopeiæ	11	51 28.89	0.22	**42.92**	0 50	....	338 40 10.92	45.735 .775	.610 .500		23.5	60 11	....
36	ξ Andromedæ.....	11	17 15.24	0.00	**42.90**	1 16	....	353 50 11.20	45.840 .835	.655 .585		6.4	45 0	....
37	δ Cassiopeiæ	11	20 5.52	−0.22	**−42.81**	1 19	....	339 8 10.95	44.535 .525	.380 .280		23.0	+59 43	....
38	B. D.+49° 403	9	25 40.93	−0.06	−42.88	1 24 57.99	−5.70	348 56 10.82	44.445	.385		11.8	+49 55 25.5	−36.8
39	B. D.+50° 299	9	27 11.38	0.07	42.88	1 26 28.43	5.75	348 32 10.70	45.205	.205		12.2	50 19 11.1	36.8
40	B. D.+50° 301	8	27 48.76	0.07	42.88	1 27 5.81	5.76	348 32 10.62	44.505	.475	B	12.3	50 22 38.1	36.7
41	B. D.+49° 414	9	29 8.42	0.06	42.88	1 28 25.48	5.76	348 46 11.05	46.090	.075	A	11.9	50 1 38.7	36.5
42	B. D.+49° 416	5	30 54.69	−0.06	−42.88	1 30 11.75	−5.90	348 46 11.10	40.870	....	C	12.1	+50 13 0.5	−36.4

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
21 2 20	29.68	31.3	32.1	7.	Bisection at III.	29	38 56 7.2
2 51	29.685	30.9	31.0	16, 27.	Bisections at I, III.	31	7.3
3 16	29.69	30.5	30.4	20, 28.	Bisections at V, VII.	32	6.4
26 0 31	29.91	34.0	31.5	29.	Bisections at VI, VII.	33	6.3
1 21	29.915	32.0	30.6	31, 32, 33, 34, 35, 36, 37.	Bisections at I, II, VI, VII.	34	6.1
				39.	Bisections at III, IV.	35	5.9
				42.	Bisection at I.	36	5.4
						37	6.5

Note.
Dec. 26. Very good seeing.

Adopted Equator Point.... 1–33 38° 56′ 6″.42
34–42 6 .08

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+50° 314	8	31 33.64	−0.07	−42.88	1 30 50.69	−5.84	348 6 6.10	44. . . .	.150		12.7	+50 45 35.5	−36.5
2	B. D.+49° 422	9	32 31.10	0.06	42.88	1 31 48.16	5.82	348 44 11.82	47.510	.540		12.0	50 6 25.1	36.3
3	B. D.+52° 399	9	34 2.70	0.10	42.88	1 33 19.72	5.99	346 26 11.42	45.755	.650		14.5	52 25 2.9	36.7
4	B. D.+52° 420	9	38 6.33	0.09	42.88	1 37 23.36	6.06	346 26 11.28	40. . . .	.480	A	14.5	52 23 29.3	36.3
5	B. D.+52° 424	9	38 47.72	0.10	42.88	1 38 4.74	6.09	346 10 11.75	43.575	.500		14.8	52 41 44.4	36.3
6	B. D.+52° 441	9	42 42.27	−0.10	−42.89	1 41 59.28	−6.16	346 10 11.75	41.700	.610	B	14.9	+52 45 33.9	−35.9
7	B. D.+54° 393	9	45 42.94	−0.12	−42.89	1 44 59.93	−6.33	344 24 11.55	48.115	.025		16.8	+54 26 19.7	−36.0
8	B. D.+54° 413	9	49 2.75	−0.12	42.89	1 48 19.74	6.38	344 36 10.82	46.870	.835		16.6	54 14 44.8	35.6
9	Eros.	11	50 50.42	+0.04	42.89	1 50 7.57	. . . .	358 22 10.85	46.970 .975	.900 .850		1.6	40 28 26.8	. . . .
10	B. D.+53° 428	9	52 26.16	−0.12	42.89	1 51 43.15	6.43	344 44 13.30	43.450	.415		16.5	54 7 46.3	35.3
11	B. D.+54° 431	8	53 46.10	−0.12	−42.89	1 53 3.09	−6.47	344 34 10.55	44.410	.255	B	16.7	+54 20 43.5	−35.2
12	B. D.+53° 440	9	57 34.68	−0.12	−42.89	1 56 51.67	−6.52	344 34 10.72	47. . . .	.445	A	16.6	+54 13 16.8	−34.8
13	B. D.+54° 452	9	58 47.65	0.12	42.89	1 58 4.64	6.55	344 34 10.68	.45.680	.595		16.6	54 17 7.0	34.6
14	B. D.+54° 470	9	4 17.58	0.13	42.89	2 3 34.56	6.69	344 2 11.98	43.935	..845		17.3	54 49 39.9	34.2
15	B. D.+54° 483	9	7 1.32	0.13	42.90	2 6 18.29	6.72	344 12 9.62	46.160	.060		17.1	54 38 59.5	33.8
16	B. D.+54° 497	9	9 7.03	0.13	42.90	2 8 24.00	6.76	344 12 9.55	49.990	.910		17.1	54 37 45.9	33.6
17	B. D.+53° 497	9	12 24.75	−0.12	−42.90	2 11 41.73	−6.74	345 2 10.75	44.345	.325		16.1	+53 49 32.7	−33.1
18	B. D.+53° 501	9	12 56.42	−0.11	−42.90	2 12 13.41	−6.74	345 10 11.82	43.465	.400	A	15.9	+53 38 32.7	−33.0
19	B. D.+53° 513	9	15 44.51	0.11	42.90	2 15 1.50	6.79	345 10 10.68	44.320	.270	C	16.1	53 47 58.2	32.7
20	B. D.+53° 519	9	18 10.10	0.11	42.90	2 17 27.09	6.83	345 10 10,72	44.650	.605	B	16.1	53 44 40.5	32.4
21	B. D.+54° 539	9	19 5.23	0.13	42.90	2 18 22.20	6.94	344 2 10.80	47.350	.255		17.3	54 48 35.6	32.5
22	B. D.+54° 554	9	22 36.79	−0.12	−42.90	2 21 53.77	−6.97	344 18 10.70	48.795	.710		17.0	+54 32 7.6	−32.0
23	B. D.+53° 532	9	23 55.27	−0.11	−42.90	2 23 12.26	−6.89	345 26 9.82	46.530	.485		15.7	+53 24 50.3	−31.6
24	B. D.+51° 587	9	25 47.45	0.09	42.90	2 25 4.46	6.78	346 58 10.40	48.175	.050		14.0	51 52 17.2	31.1
25	B. D.+53° 541	9	26 45.99	0.12	42.90	2 26 2.97	7.00	344 44 11.38	47.075	.965		16.5	54 6 39.7	31.4
26	B. D.+51° 594	9	28 29.65	0.08	42.90	2 27 46.67	6.79	347 18 11.02	47. . . .	.530		13.6	51 32 27.5	30.7
27	B. D.+50° 587	9	29 13.73	−0.07	−42.90	2 28 30.76	−6.74	348 6 12.20	44.055	.005		12.7	+50 45 32.4	30.4
28	B. D.+51° 599	9	30 45.69	−0.08	−42.91	2 30 2.70	−6.82	347 20 9.55	42.910	.830		13.6	+51 31 58.2	−30.4
29	B. D.+50° 589	9	32 12.90	0.07	42.91	2 31 29.92	6.75	348 30 11.00	48. . . .	.615	C	12.4	50 26 30.7	30.0
30	B. D.+50° 595	9	33 14.83	0.07	42.91	2 32 31.85	6.76	348 30 11.05	44.005	.945		12.3	50 21 34.2	29.9
31	B. D.+49° 753	9	37 37.59	0.06	42.91	2 36 54.62	6.81	348 38 11,75	42.485	.360	A	12.1	50 10 48.4	29.3
32	B. D.+50° 620	9	38 54.78	−0.07	−42.91	2 38 11.80	−6.84	348 38 12.35	48.030	.975	C	12.2	+50 18 41.5	−29.2
33	B. D.+50° 627	9	40 19.28	−0.06	−42.91	2 39 36.31	−6.84	348 38 12.58	48.175	.075		12.1	+50 12 12.9	−28.9
34	B. D.+50° 636	8	42 25.68	0.07	42.91	2 41 42.70	6.90	348 22 9.65	45.350	.255		12.4	50 29 10.3	28.7
35	B. D.+48° 764	9	43 33.10	−0.05	42.91	2 42 50.14	6.74	350 22 9.40	48.090	.015		10.2	48 28 15.6	28.2
36	B. D.+40° 612	7	44 54.87	+0.04	42.91	2 44 12.00	6.25	357 58 9.35	44.045	.000		2.1	40 53 23.6	26.4
37	B. D.+48° 777	9	46 10.04	−0.04	−42.91	2 45 27.09	−6.78	350 22 9.48	46.680	.690		10.2	+48 28 41.4	−27.8
38	τ Persei.	11	48 0.00	−0.09	**−42.91**	2 47	. . . .	346 30 10.48	43.900 .890	.760 .640		14.5	+52 21	. . . .
39	γ Persei.	11	58 23.43	−0.10	**42.94**	2 57	. . . .	345 44 10.70	44.920 .910	.765 .710		15.4	53 7	. . .
40	β Persei.	11	2 28.90	+0.04	**42.97**	3 1	. . . .	358 16 8.85	46.525 .525	.415 .310		1.8	40 34	. . . .
41	α Persei.	11	18 0.97	−0.06	**−42.85**	3 17	. . . .	349 20 9.70	46.715 .710	.570 .535		11.4	+49 30	. . . .

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
26 1 47	29.92	31.2	30.0	1, 12, 29.	Bisection at V.	38	38 56 6.7
2 20	29.92	30.8	29.2	4.	Bisection at III.	39	6.4
2 48	29.92	30.4	28.4	8, 17, 20.	Bisections at I, II.	40	5.8
3 19	29.93	29.8	28.2	9, 38, 39, 40, 41.	Bisections at I, II, VI, VII.	41	5.8
				10, 37.	Bisections at IV, V.		
				11.	Bisections at V, VII.		
				26.	Bisection at IV.		
				36.	Bisections at V, VI.		

Adopted Equator Point.... 1–41 38° 56′ 6″.08

1900 DECEMBER 27. CLAMP EAST.

KING, OBSERVER. BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT. DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	*o* Cassiopeiæ......	11	39 56.80	+0.04	**−42.98**	0 39	....	351 6 9.78	46.035 .025	.910 .825		9.3	+47 44	....
2	*γ* Cassiopeiæ......	11	51 28.94	−0.14	**48.08**	0 50	....	338 40 10.15	45.765 .715	.610 .505		23.4	60 11	....
3	*ξ* Andromedæ.....	11	17 15.37	+0.07	**48.12**	1 16	....	353 50 9.88	45.840 .865	.715 .640		6.4	45 0	....
4	*δ* Cassiopeiæ......	10	20 5.69	−0.13	**−48.10**	1 19	....	339 8 9.35	44.	.415 .330		22.9	+59 43	....
5	B. D.+37° 596	9	35 43.38	+0.14	−43.09	2 35 0.43	−5.98	1 2 9.02	46.130	.090		1.2	+37 48 42.1	−26.9
6	B. D.+41° 517	9	36 36.63	0.11	43.09	2 35 53.65	6.20	357 6 9.65	44.305	.235		3.0	41 45 19.7	27.7
7	B. D.+42° 615	9	37 55.97	0.10	43.09	2 37 12.98	6.24	356 44 9.45	49.235	.185	C	3.5	42 12 11.6	27.6
8	B. D.+41° 530	9	40 1.66	0.10	43.09	2 39 18.67	6.26	356 44 9.45	46.175	.090		3.4	42 6 45.8	27.4
9	B. D.+43° 574	7	40 50.36	0.09	43.09	2 40 7.36	6.34	355 36 8.60	46.500	....	C	4.7	43 21 6.2	27.5
10	B. D.+43° 579	9	42 33.07	0.09	43.10	2 41 50.06	6.35	355 36 8.52	42.575	.540	A	4.5	43 12 41.6	27.3
11	B. D.+43° 580	8	43 24.21	+0.08	−43.10	2 42 41.19	−6.41	354 56 8.52	47.640	.530		5.3	+43 54 19.6	−27.3
12	*τ* Persei...........	11	48 0.15	−0.01	**−48.15**	2 47	....	346 30 9.10	43.920 .875	.775 .665		14.4	+52 21	....
13	*γ* Persei...........	11	58 23.52	−0.02	**48.18**	2 57	....	345 44 9.62	44.930 .905	.815 .720		15.3	53 7	....
14	*β* Persei...........	11	2 28.95	+0.12	**48.11**	3 1	....	358 16 9.40	46.410 .390	.280 .215		1.7	40 34	....
15	*α* Persei...........	11	18 1.04	+0.02	**−48.01**	3 17	....	349 20 9.75	46.655 .610	.505 .400		11.3	+49 30	....

1900 DECEMBER 28. CLAMP EAST.

KING, OBSERVER. BOEGER, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT. DECL.	RED. TO 1900. 0
16	*o* Cassiopeiæ......	11	39 57.13	−0.02	**−48.27**	0 39	....	351 6 9.18	46.015 .970	.845 .745		9.1	+47 44	....
17	*γ* Cassiopeiæ......	11	51 29.19	−0.19	**48.31**	0 50	....	338 40 9.58	45.655 .640	.520 .430		22.9	60 11	.....
18	*ξ* Andromedæ.....	11	17 15.68	+0.01	**48.39**	1 16	....	353 50 8.98	45.850 .830	.745 .640		6.3	45 0	....
19	*δ* Cassiopeiæ......	11	20 6.03	−0.18	**−48.42**	1 19	....	339 8 9.32	44.540 .535	.400 .285		22.4	+59 43	....
20	B. D.+49° 399	9	24 49.62	−0.03	−43.39	1 24 6.20	−5.62	349 26 8.55	42.265	.215		10.9	+49 26 6.8	−36.8
21	B. D.+50° 297	6	26 31.10	0.05	43.39	1 25 47.66	5.73	347 52 8.72	45. ...	.470	A	12.5	50 55 50.7	37.1
22	B. D.+50° 300	7	27 38.06	0.05	43.39	1 26 54.62	5.75	347 52 10.05	46.635	.570		12.6	50 58 42.1	37.0
23	B. D.+51° 331	9	28 48.01	−0.06	−43.39	1 28 4.56	−5.79	347 30 9.15	49.395	.265		13.0	+51 19 50.4	−37.0
24	B. D.+46° 393	9	30 48.39	0.00	−43.39	1 30 5.00	−5.58	352 14 8.95	46.320	.240		8.0	+46 36 46.0	−35.7
25	B. D.+46° 397	8	31 7.81	0.00	43.39	1 30 24.42	5.60	352 2 9.30	43.995	.860		8.2	46 49 29.2	35.7
26	B. D.+46° 404	5	32 1.90	0.00	43.39	1 31 18.51	5.59	352 24 9.52	45.755	.695		7.8	46 26 53.6	35.5
27	B. D.+53° 355	9	33 54.65	−0.09	43.39	1 33 11.17	6.02	345 14 9.95	42.040.	.930		15.5	53 38 15.0	37.0
28	B. D.+51° 363	9	34 52.00	−0.06	−43.39	1 34 8.55	−5.90	347 30 9.42	42.500	.440		13.0	+51 22 3.7	−36.5
29	B. D.+42° 352	9	36 52.58	+0.03	−43.40	1 36 9.21	−5.51	355 42 8.58	46.555	.455		4.3	+43 8 38.5	−34.3
30	B. D.+42° 356	9	38 6.42	0.03	43.40	1 37 23.05	5.53	355 42 8.40	44.245	.160	B	4.4	43 12 36.2	34.2
31	B. D.+42° 361	9	39 2.38	0.03	43.40	1 38 19.01	5.54	355 42 8.40	44.585	.535		4.4	43 9 16.1	34.1
32	B. D.+42° 370	9	41 5.72	0.03	43.40	1 40 22.35	5.57	355 42 8.20	43.500	.450	B	4.4	43 12 50.4	33.9
33	B. D.+43° 373	6	44 0.05	+0.03	−43.40	1 43 16.68	−5.57	355 42 8.72	47.340	.360	C	4.4	+43 14 48.3	−33.7

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
27 0 38	29.99	34.8	34.0
1 23	29.99	33.8	33.2
2 25	29.97	33.2	32.0
3 18	29.99	33.8	33.4
28 0 37	29.72	41.0	41.4
1 20	29.72	40.0	40.5

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 3, 12, 13, 14, 15, 16, 17, 18, 19.	Bisections at I, II, VI, VII
4, 26.	Bisections at VI, VII.
5, 8, 10.	Bisections at I, III.
9.	Bisection at III.
21.	Bisection at V.
22.	Bisections at V, VI.
23, 25.	Bisections at V, VII.

Notes.

Dec. 27. Seeing only moderately good; clouds.
28. Before Eros the seeing was very poor, afterwards it materially improved.

Adopted Equator Point.... 1–15 38° 56′ 5″.06
16–33 { 1h.040 4 .12
2 .480 4 .82

No.	Eq. Points.
	° ′ ″
1	38 56 4.8
2	5.2
3	4.6
4	5.8
12	5.7
13	5.8
14	4.2
15	4.4
16	3.4
17	3.5
18	3.8
19	5.8

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	2 Persei	3	46 37.12	−0.04	**−43.52**	1 45	....	348 34 9.18	41.120 .150	.... .935		11.9	+50 18	....
2	Eros	11	55 11.05	+0.06	−43.41	1 54 27.70	....	359 14 8.82	45.540 .505	.440 .400		0.7	+39 36 54.3	....
3	B. D. +53° 437	6	56 12.56	−0.09	−43.41	1 55 29.06	−6.41	345 18 9.60	47.105	.045		15.4	+53 32 35.3	−34.9
4	B. D. +54° 448	9	57 56.48	0.10	43.41	1 57 12.97	6.52	344 12 9.75	46.200	.150		16.6	54 38 56.1	35.0
5	B. D. +54° 457	9	59 58.46	0.10	43.41	1 59 14.95	−6.55	344 24 9.95	44.445	.325		16.4	54 27 30.0	−34.7
6	6 Persei	8	7 47.07	−0.05	**−43.55**	2 7	....	348 14 10.12	46.970 .950	....		12.2	+50 36	....
7	B. D. +40° 567	9	35 1.75	+0.05	−43.43	2 34 18.37	−6.12	357 58 9.20	43.380	.320		2.0	+40 53 36.6	−27.7
8	B. D. +40° 570	9	36 27.96	0.05	43.43	2 35 44.58	6.14	357 58 9.08	48.435	.395	C	2.1	40 58 25.6	27.6
9	B. D. +42° 614	9	37 55.92	0.03	43.43	2 37 12.52	6.28	355 44 8.62	44.760	.690		4.3	43 7 13.1	27.9
10	B. D. +44° 569	9	39 1.95	0.01	43.44	2 38 18.52	6.42	353 40 9.52	45.335	.225		6.5	45 11 3.8	28.2
11	B. D. +44° 573	9	40 34.34	0.01	43.44	2 39 50.91	6.44	353 48 8.68	48.035	.910		6.3	45 2 12.8	28.0
12	B. D. +44° 577	9	41 50.71	+0.02	−43.44	2 41 7.29	−6.44	354 0 8.65	44.885	.810		6.1	+44 51 12.5	−27.8
13	B. D. +46° 641	9	43 18.34	0.00	−43.44	2 42 34.90	−6.59	352 2 10.52	46.975	.880		8.2	+46 48 32.8	−28.1
14	B. D. +43° 583	9	44 16.29	+0.03	43.44	2 43 32.88	6.37	355 26 9.40	47.560	.515		4.6	43 24 18.7	27.2
15	B. D. +43° 586	9	44 56.79	0.02	43.44	2 44 13.37	6.42	354 54 9.25	45.145	.060		5.2	43 57 5.8	27.2
16	B. D. +43° 593	9	46 42.64	+0.03	43.44	2 45 59.23	6.40	355 26 8.58	44.225	.090	A	4.6	43 22 9.7	26.9
17	B. D. +46° 652	9	48 6.78	0.00	43.44	2 47 23.34	6.65	352 2 9.38	46.150	.050	A	8.1	46 45 35.1	27.4
18	B. D. +46° 656	8	49 38.65	−0.01	−43.44	2 48 55.20	−6.68	352 2 10.28	49.105	.015	C	8.3	+46 54 18.3	−27.3
19	*γ* Persei	11	58 23.81	−0.08	**−43.37**	2 57	....	345 44 9.38	44. ... .895	.745 .665		14.9	+53 7	....
20	*β* Persei	11	2 29.27	+0.06	**−43.38**	3 1	....	358 16 9.32	46.470 .460	.325 .175		1.7	+40 34	...

1901 JANUARY 1. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
21	*o* Cassiopeiæ	9	39 58.41	+0.11	**−44.76**	0 39	....	351 6 10.25	45.	.805 .730		9.3	+47 44	....
22	*γ* Cassiopeiæ	10	51 30.52	−0.01	**44.95**	0 50	....	338 40 10.20	45.680 .660	.535 .440		23.3	60 11	....
23	*ξ* Andromedæ.....	11	17 17.21	+0.13	**45.11**	1 16	....	353 50 8.72	45.840	.770		6.4	45 0	....
24	*δ* Cassiopeiæ	8	20 7.38	−0.01	**−45.05**	1 19	....	339 8 10.70	44. ... .380	.250 .150		22.8	+59 43	....
25	B. D. +39° 468	9	1 20.82	+0.16	−44.96	2 0 36.02	−5.63	358 42 9.60	48.985	.915		1.3	+40 7 47.3	−31.3
26	B. D. +37° 486	9	3 17.41	0.18	44.96	2 2 32.63	−5.54	1 26 8.90	49.545	.435		1.6	37 23 34.7	−30.4
27	Eros	11	4 45.07	0.18	44.96	2 4 0.29	....	0 56 9.68	48.945	.835		1.1	37 53 45.8	....
28	6 Persei	11	7 48.35	+0.09	**−45.04**	2 7	....	348 14 9.35	46.940 .955	....		12.5	+50 36	....
29	B. D. +54° 494	8	8 33.96	+0.05	−44.96	2 7 49.05	−6.64	344 0 9.28	44.330	.240		17.2	+54 51 31.0	−34.2
30	B. D. +41° 517	9	36 38.43	0.16	44.95	2 35 53.64	6.13	357 6 9.38	44.245	.180		3.0	41 45 20.1	28.0
31	B. D. +48° 746	9	38 13.60	0.10	44.95	2 37 28.75	6.61	350 2 9.35	46.245	.140		10.5	48 48 49.6	29.4
32	B. D. +48° 752	9	40 27.17	+0.10	−44.95	2 39 42.32	−6.65	350 2 9.35	41.250	.190	C	10.7	+48 56 51.1	−29.2
33	B. D. +48° 760	9	42 17.10	+0.10	−44.95	2 41 32.25	−6.67	350 2 9.50	47.015	.940		10.5	+48 48 35.5	−29.0
34	B. D. +48° 762	9	42 53.08	0.10	44.95	2 42 8.23	6.67	350 2 9.38	43.455	.365	A	10.5	48 46 28.2	28.9
35	B. D. +48° 763	9	43 19.27	0.10	44.95	2 42 34.42	6.69	350 2 9.45	41.430	.295	B	10.6	48 53 33.5	28.8
36	B. D. +48° 770	9	45 11.35	+0.10	−44.95	2 44 26.50	−6.72	350 2 9.62	41.910	.840	C	10.7	+48 56 38.3	−28.6
37	*τ* Persei	11	48 1.75	+0.07	**−44.92**	2 47	....	346 30 9.28	43.805 .800	.650 .590		14.4	+52 21	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
28 2 0	29.725	39.5	39.8
3 3	29.73	39.0	39.2
1 0 37	30.13	39.0	38.9
1 21	30.14	38.4	37.8
2 0	30.155	37.7	36.7
2 35	30.16	36.9	35.0
3 3	30.165	36.1	34.8

Telescope micrometer bisections are made at III and V, except as noted below.

1.	Bisections at I, II, VII.
2, 20, 22, 37.	Bisections at I, II, VI, VII.
3, 21.	Bisections at VI, VII.
6, 28.	Bisections at I, II.
15.	Bisections at IV, V.
19, 24.	Bisections at II, VI, VII.
23.	Bisections at IV, VI.
27.	Bisections at II, VI.
29, 35.	Bisections at V, VII.
33.	Bisections at I, III.

Note.

Jan. 1. Clouds at first; sky thick all the evening; observations fairly good.

Adopted Equator Point.... 1–20 $\begin{cases} 1^h.040 & 38° 56' 4''.12 \\ 2\ .480 & 4\ .82 \end{cases}$

21–37 4 .09

No.	Eq. Points.
	° ′ ″
1	38 56 4.5
6	4.6
19	5.4
20	4.8
21	3.6
22	4.0
23	4.5
24	4.1
28	3.5
37	4.5

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	γ Persei...........	11	58 25.15	+0.06	**−44.91**	2 57	....	345 44 10.52	44.785 .795	.655 .545		15.3	+53 7	....
2	β Persei...........	11	2 30.70	+0.16	**−44.94**	3 1	....	358 16 9.25	46.395 .380	.255 .195		1.7	+40 34	....

1901 JANUARY 2. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

3	ξ Andromedæ.....	8	17 17.19	+0.09	**−45.06**	1 16	....	353 50 9.75	45.	.760 .670		6.5	+45 0	....
4	δ Cassiopeiæ......	11	20 7.33	−0.10	**−44.94**	1 19	....	339 8 10.48	44. ... .460	.350 .280		23.3	+59 43	....
5	B. D.+47° 429	9	25 24.00	+0.07	−45.01	1 24 39.06	−5.43	351 28 10.50	44.195	.185		9.1	+47 23 27.6	−36.4
6	B. D.+48° 455	9	26 16.97	0.06	45.01	1 25 32.02	5.49	350 34 9.40	45.990	.910		10.1	48 16 54.9	36.5
7	B. D.+48° 463	9	28 6.83	0.06	45.01	1 27 21.88	5.53	350 20 8.85	45.950	.885		10.4	48 30 56.4	36.4
8	B. D.+44° 326	9	29 28.21	0.09	45.01	1 28 43.29	5.40	353 46 9.42	43.770	.695		6.6	45 5 33.9	35.4
9	B. D.+46° 389	9	30 20.99	0.08	45.01	1 29 36.06	5.47	352 28 9.50	44.150	.050		8.0	46 23 28.2	35.7
10	B. D.+47° 463	9	31 30.97	+0.06	−45.01	1 30 46.02	−5.55	351 2 9.60	46.030	.955		9.6	+47 48 53.4	−36.0
11	B. D.+44° 341	9	33 20.78	+0.09	−45.01	1 32 35.86	−5.45	353 56 9.05	48.590	.500		6.4	+44 54 1.8	−35.1
12	B. D.+41° 321	9	34 31.89	0.12	45.01	1 33 47.00	5.36	356 36 8.48	47.200	.140		3.5	42 14 25.9	34.3
13	B. D.+44° 352	9	36 41.38	0.09	45.01	1 35 56.46	5.50	353 46 9.82	45.850	.795		6.6	45 4 53.5	34.9
14	B. D.+44° 354	9	38 1.60	0.09	45.01	1 37 16.68	5.51	354 2 9.05	43.465	.390		6.3	44 49 39.9	34.7
15	B. D.+43° 364	9	41 6.15	0.10	45.01	1 40 21.24	5.53	354 42 9.75	44.430	.380		5.6	44 9 19.7	34.3
16	B. D.+41° 347	9	42 35.53	+0.12	−45.01	1 41 50.64	−5.46	356 56 10.02	42.310	.235		3.2	+41 55 57.9	−33.5
17	B. D.+41° 352	9	43 45.95	+0.12	−45.01	1 43 1.06	−5.48	356 38 9.55	44.975	.900		3.5	+42 13 7.6	−33.5
18	B. D.+42° 390	9	46 12.41	0.12	45.01	1 45 27.52	5.52	356 38 9.38	43.970	.875	B	3.6	42 16 40.6	33.3
19	B. D.+41° 364	9	48 0.63	+0.12	45.01	1 47 15.74	5.53	356 48 9.55	45.910	.825		3.3	42 2 49.5	33.1
20	B. D.+54° 415	9	49 59.77	−0.02	45.01	1 49 14.74	6.30	343 46 9.60	43.640	.570		17.8	55 5 47.4	36.2
21	B. D.+41° 374	9	51 18.95	+0.12	45.01	1 50 34.06	5.55	357 26 8.72	46.290	.275		2.7	41 24 41.5	32.0
22	B. D.+38° 392	9	55 37.26	+0.14	−45.01	1 54 52.39	−5.51	359 42 9.58	45.100	.065		0.2	+39 9 2.7	−31.6
23	B. D.+38° 391	9	55 38.96	+0.14	−45.01	1 54 54.09	−5.51	359 42 9.92	48.530	.430		0.2	+39 7 54.2	−31.6
24	γ Andromedæ.....	11	58 36.08	+0.12	**−45.04**	1 57	....	357 0 9.52	43.695 .650	.515 .455		3.1	+41 51	....
25	B. D.+39° 464	9	0 33.69	0.14	45.01	1 59 48.82	−5.57	359 34 8.32	43.955	.845		0.4	39 17 25.6	−31.2
26	β Trianguli	11	4 25.74	0.18	**45.02**	2 3	....	4 20 9.58	43.880 .860	.730 .680		4.7	34 31	....
27	Eros............	11	7 18.32	+0.16	−45.01	2 6 33.47	....	1 22 9.35	48.310 .300	.230 .190		1.6	+37 27 58.7	....
28	γ Trianguli	11	12 12.31	+0.19	**−45.00**	2 11	....	5 28 9.80	43.120 .115	.990 .880		5.9	+33 23	....
29	B. D.+37° 589	9	33 0.84	+0.16	−45.01	2 32 15.99	−5.86	1 20 9.08	43.185	.115		1.5	+37 31 37.4	−27.3
30	B. D.+37° 596	9	35 45.11	0.16	45.01	2 35 0.26	5.90	1 2 9.40	46.050	.970		1.2	37 48 42.5	27.1
31	B. D.+39° 613	7	37 5.11	0.14	45.01	2 36 20.24	6.00	359 28 9.50	47. ...	.130		0.5	39 22 20.9	27.3
32	B. D.+42° 615	8	37 57.89	0.08	45.01	2 37 12.96	6.16	356 44 9.40	49.120	.100	C	3.5	42 12 12.6	28.0
33	B. D.+41° 530	9	40 3.41	0.12	45.00	2 39 18.53	6.18	356 44 9.42	46.095	.995		3.4	42 6 46.4	27.7
34	B. D.+43° 574	9	40 52.19	+0.11	−45.00	2 40 7.30	−6.26	355 36 8.32	46.455	.445	C	4.7	+43 21 6.7	−27.9
35	B. D.+43° 579	9	42 34.75	+0.11	−45.00	2 41 49.86	−6.27	355 36 8.35	42.535	.425	A	4.6	+43 12 42.3	−27.7
36	B. D.+43° 580	9	43 26.08	0.10	45.00	2 42 41.18	6.33	354 56 9.85	47.440	.440		5.3	43 54 19.9	27.7
37	B. D.+43° 586	9	44 58.12	0.10	45.00	2 44 13.22	−6.35	354 54 8.32	45.220	.130		5.4	43 57 6.2	−27.6
38	τ Persei...........	11	48 1.90	+0.01	**−45.02**	2 47	....	346 30 9.68	43. ... .890	.685		14.7	+52 21	....
39	B. D.+42° 650	9	49 18.13	+0.11	−45.00	2 48 33.24	−6.32	356 2 9.68	45.925	.820		4.2	+42 48 48.4	−26.8

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
2 1 22	30.22	31.0	29.8
1 52	30.225	30.1	29.4
2 19	30.23	29.7	29.1
2 50	30.23	29.0	29.0
3 18	30.235	28.8	28.5

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 24, 26, 27, 28.	Bisections at I, II, VI, VII.
3.	Bisections at VI, VII.
4.	Bisections at II, VI, VII.
5.	Bisections at II, III.
21, 34.	Bisections at IV, V.
22.	Bisections at I, III.
23, 39.	Bisections at V, VII.
31.	Bisection at VI.
32, 36.	Bisections at V, VI.
38.	Bisections at II, VI.

Note.

Jan. 2. Seeing good. Clouds at beginning and thin clouds at times during evening.

No.	Eq. Points.
	° ′ ″
1	38 56 4.5
2	4.0
3	5.2
4	5.3
24	4.2
26	5.2
28	4.4
38	5.9

Adopted Equator Point.... 3–39 38° 56′ 5″.16

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	γ Persei	11	58 25.22	0.00	**−44.94**	2 57	....	345 44 9.20	44.940 .930	.830 .745		15.5	+53 7	....
2	β Persei	11	2 30.78	+0.13	**45.00**	3 1	....	358 16 9.18	46.460 .440	.320 .245		1.8	40 34	....
3	α Persei	10	18 2.98	+0.05	**−45.05**	3 17	....	349 20 9.72	46.655 .625	.495 .420		11.5	+49 30	....
	KING, OBSERVER.					1901 JANUARY 3.		CLAMP EAST.					HAMMOND, ASSISTANT.	
4	o Cassiopeiæ......	11	39 58.85	+0.07	**−45.21**	0 39	....	351 6 9.40	46.075 .065	.935 .855		9.6	+47 44	....
5	γ Cassiopeiæ......	11	51 30.91	−0.10	**45.32**	0 50	....	338 40 10.55	45.705 .690	.530 .475		24.2	60 11	....
6	ξ Andromedæ.....	11	17 17.30	+0.09	**45.19**	1 16	....	353 50 8.95	45.880 .875	.755 .685		6.7	45 0	....
7	δ Cassiopeiæ......	11	20 7.57	−0.11	**−45.21**	1 19	....	339 8 10.02	44.495 .480	.400 .270		23.7	+59 43	....
8	B. D. +48° 453	9	25 44.96	+0.05	−45.22	1 24 59.79	−5.48	350 0 9.80	47.905	.865		10.9	+48 50 19.0	−36.7
9	B. D. +48° 454	9	26 16.60	0.05	45.22	1 25 31.43	5.48	350 18 9.88	48.615	.515		10.6	48 32 4.2	36.6
10	B. D. +48° 470	9	29 11.18	0.05	45.22	1 28 26.01	5.55	349 48 10.02	43.570	.545		11.2	49 3 40.7	36.5
11	B. D. +48° 477	9	30 54.01	0.05	45.22	1 30 8.84	5.56	350 8 9.90	48.180	.110		10.7	48 42 12.3	36.3
12	B. D. +44° 337	8	33 11.15	0.09	45.22	1 32 26.02	5.44	353 42 10.20	42.740	.665		6.8	45 9 52.5	35.2
13	B. D. +51° 357	9	34 4.73	+0.01	−45.22	1 33 19.52	−5.77	347 6 10.45	42.240	.175		14.2	+51 46 8.8	−36.8
14	B. D. +53° 375	9	38 16.70	−0.01	−45.22	1 37 31.47	−5.94	345 24 10.42	45.025	.945		16.2	+53 27 17.9	−36.9
15	B. D. +53° 386	9	42 6.09	0.02	45.22	1 41 20.85	6.02	345 24 10.38	43.860	.830	B	16.3	53 30 54.3	36.5
16	B. D. +53° 388	7	42 26.65	0.01	45.22	1 41 41.42	6.02	345 24 10.40	45. ...	.010	A	16.1	53 24 1.8	36.5
17	B. D. +53° 395	9	44 2.40	0.02	45.21	1 43 17.17	6.05	345 24 10.50	40.085	.025	A	16.2	53 25 37.6	36.4
18	B. D. +53° 398	8	44 51.89	0.01	45.21	1 44 6.67	6.05	345 34 10.42	40.820	.700	A	16.0	53 15 21.9	36.2
19	B. D. +53° 402	5	46 3.18	−0.02	−45.21	1 45 17.95	−6.08	345 34 10.28	37.380	.260	B	16.1	+53 22 55.6	−36.2
20	B. D. +53° 416	9	48 58.77	−0.02	−45.21	1 48 13.54	−6.14	345 34 10.30	42.370	.310	C	16.1	+53 24 34.6	−35.9
21	B. D. +55° 440	9	50 5.39	0.05	45.21	1 49 20.13	6.30	343 30 9.50	46.640	.550		18.4	55 20 50.1	36.2
22	B. D. +54° 429	9	53 1.80	−0.04	45.21	1 52 16.55	6.33	343 46 9.98	42.180	.075		18.1	55 6 15.0	35.9
23	B. D. +39° 450	9	55 19.39	+0.14	45.21	1 54 34.32	5.50	359 22 9.95	43.740	.690		0.6	39 29 27.1	31.8
24	B. D. +39° 454	9	56 35.79	0.14	45.21	1 55 50.72	−5.55	358 40 9.60	43.430	.390		1.4	40 11 34.2	−31.8
25	γ Andromedæ.....	11	58 36.25	+0.12	**−45.22**	1 57	....	357 0 9.22	43.690 .675	.550 .430		3.2	+41 51	....
26	B. D. +53° 451	9	0 54.75	−0.03	−45.21	2 0 9.51	−6.38	345 4 10.88	45.425	.315	B	16.6	+53 50 23.7	−34.9
27	B. D. +53° 459	9	4 12.54	−0.03	45.21	2 3 27.30	−6.44	345 4 10.90	40.340	.335	B	16.7	53 52 1.4	−34.6
28	β Trianguli	8	4 25.91	+0.19	**−45.22**	2 3	....	4 20 9.92	43.	.675 .650		4.8	+34 31	....
29	B. D. +53° 474	9	7 17.87	−0.03	−45.20	2 6 32.64	−6.48	345 4 10.55	40.510	.335	A	16.6	+53 45 30.9	−34.2
30	B. D. +53° 485	8	8 50.10	−0.02	45.20	2 8 4.88	−6.49	345 16 10.48	45.860	.845		16.4	53 35 2.3	−34.0
31	γ Trianguli	11	12 12.52	+0.20	**−45.24**	2 11	....	5 28 10.58	43.100 .075	.940 .920		6.1	+33 23	....
32	B. D. +49° 741	9	35 10.03	+0.03	−45.19	2 34 24.87	−6.60	349 16 10.08	44.420	.395		11.8	+49 35 26.0	−30.2
33	B. D. +42° 610	9	37 25.95	0.11	45.19	2 36 40.87	6.16	356 16 9.58	43.625	.530		4.0	42 35 33.5	28.2
34	B. D. +40° 577	9	38 12.22	0.13	45.19	2 37 27.16	6.09	357 46 10.22	45.780	.690		2.4	41 4 49.9	27.7
35	B. D. +40° 590	8	40 38.85	0.13	45.19	2 39 53.79	6.11	357 46 10.78	41.825	.790	A	2.3	41 2 51.4	27.4
36	B. D. +45° 660	9	41 25.49	+0.08	−45.19	2 40 40.38	−6.39	353 20 10.48	47.770	.725		7.2	+45 30 15.8	−28.4
37	B. D. +47° 700	9	42 35.55	+0.05	−45.19	2 41 50.41	−6.58	350 48 10.35	46.770	.720		10.0	+48 2 38.0	−28.9
38	B. D. +44° 582	8	43 56.30	0.08	45.19	2 43 11.19	6.39	353 52 10.08	43.120	.050		6.7	44 59 45.2	28.0
39	B. D. +45° 667	9	45 1.06	0.08	45.19	2 44 15.95	6.44	353 10 9.90	48.720	.680		7.4	45 39 58.4	28.0
40	B. D. +47° 720	9	46 29.18	+0.01	−45.19	2 45 44.00	−6.59	351 20 10.22	47.050	.970		9.4	+47 30 32.5	−28.3

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
3 0 38	30.35	25.4	24.4	1, 2, 3, 4, 5, 6, 7, 25, 31.	Bisections at I, II, VI, VII.	1	38 56 6.2
1 20	30.36	24.0	22.8	8, 35.	Bisections at I, II.	2	5.1
1 51	30.37	23.2	22.2	13.	Bisections at IV, V.	3	4.9
2 25	30.37	23.0	22.0	15, 27, 32.	Bisections at I, III.	4	4.5
3 3	30.37	22.1	21.4	16.	Bisection at V.	5	3.8
				18.	Bisections at V, VII.	6	4.0
				19, 28.	Bisections at VI, VII.	7	4.7
				30.	Bisections at II, III.	25	4.0
				Note. Jan. 3. Stars steady, but diffuse. Sky thick, cutting out faint stars.		28	5.1
					Adopted Equator Point.... 4–40 38° 56′ 4″.59	31	5.0

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	τ Persei	11	48 2.05	−0.01	**−45.17**	2 47	....	346 30 10.62	43.000 .785	.615 .540		15.0	+52 21	....
2	γ Persei	11	58 25.41	−0.02	**45.18**	2 57	....	345 44 9.82	44. ... .865	.735 .650		15.8	53 7	....
3	β Persei	11	2 30.95	+0.13	**−45.19**	3 1	....	358 16 9.78	46.415 .395	.225 .210		1.8	+40 34	....

1901 JANUARY 4. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
4	ο Cassiopeiæ	11	39 59.14	+0.13	**−45.58**	0 39	....	351 6 8.95	46.0[illegible] .0[illegible]	.915 .840		9.3	+47 44	....
5	γ Cassiopeiæ	11	51 31.15	−0.04	**45.65**	0 50	....	338 40 9.62	45.700 .685	.590 .520		23.4	60 11	....
6	ξ Andromedæ	11	17 17.60	+0.16	**45.57**	1 16	....	353 50 8.95	45.870 .865	.725 .540		6.4	45 0	....
7	δ Cassiopeiæ.	11	20 7.88	−0.03	**−45.68**	1 19	....	339 8 10.70	44.430 .375	.260 .180		22.9	+59 43	....
8	B. D. +47° 434[1]	10	25 42.56	+0.13	−45.61	1 24 57.08	−5.42	350 56 9.92	46.625	.620		9.5	+47 54 40.9	−36.5
9	B. D. +47° 434[2]	9	25 44.62	0.13	45.61	1 24 59.14	5.42	350 56 10.05	46.025	.985		9.5	47 54 49.6	36.5
10	B. D. +47° 442	9	27 7.87	0.13	45.61	1 26 22.39	5.44	350 56 10.05	46.100	.070		9.5	47 54 48.7	36.4
11	B. D. +49° 412	7	28 40.52	0.11	45.61	1 27 55.02	5.54	349 14 10.05	43.610	....		11.4	49 37 40.1	36.7
12	B. D. +47° 450	6	28 56.41	0.13	45.61	1 28 10.93	5.47	350 56 9.40	45.190	.160		9.5	47 55 5.7	36.2
13	B. D. +44° 329	9	30 11.26	+0.17	−45.61	1 29 25.82	−5.34	354 26 9.75	44.000	.810		5.8	+44 25 26.6	−35.2
14	B. D. +47° 460	8	31 11.37	+0.13	−45.61	1 30 25.89	−5.52	350 38 9.95	44.550	.525		9.9	+48 13 18.9	−36.2
15	B. D. +45° 392	8	32 4.73	0.15	45.61	1 31 19.27	5.44	352 54 9.50	43.740	(.725)		7.4	45 57 32.3	35.5
16	B. D. +45° 398	6	33 13.33	0.15	45.61	1 32 27.87	5.45	352 54 9.60	39.330	.270	A	7.4	45 55 42.4	35.4
17	B. D. +45° 416	9	36 13.56	0.15	45.61	1 35 28.10	5.49	352 54 10.22	41.635	.550	A	7.4	45 54 59.1	35.2
18	B. D. +42° 354	9	37 6.83	0.18	45.61	1 36 21.40	5.37	356 20 9.80	43.665	.600		3.8	42 31 31.2	34.1
19	B. D. +54° 368	9	38 38.59	+0.06	−45.61	1 37 53.04	−5.99	344 28 9.85	44.055	.020		16.7	+54 23 36.6	−37.1
20	B. D. +41° 342	9	42 2.09	+0.19	−45.61	1 41 16.67	−5.40	357 8 9.82	47.770	.695		2.9	+41 42 12.0	−33.5
21	B. D. +42° 388	9	45 54.01	0.18	45.61	1 45 8.58	5.51	355 48 9.55	47.515	.465		4.3	43 2 19.5	33.6
22	B. D. +39° 421	8	47 16.40	0.21	45.62	1 46 30.99	5.41	358 46 9.12	49.265	.200		1.2	40 3 43.5	32.6
23	B. D. +40° 394	9	48 8.22	0.20	45.62	1 47 22.80	5.42	358 34 9.50	42.150	.075	A	1.4	40 14 43.9	32.6
24	B. D. +40° 400	9	49 18.27	+0.20	−45.62	1 48 32.85	−5.45	358 34 9.48	42.225	.150	C	1.6	+40 24 23.3	−32.5
25	B. D. +40° 412	9	53 11.57	+0.20	−45.62	1 52 26.15	−5.50	358 24 9.48	48.020	.965		1.6	+40 26 6.1	−32.2
26	B. D. +37° 452	9	55 9.34	0.23	45.62	1 54 23.95	5.43	0 44 9.40	44.275	.230		0.9	38 7 15.4	31.4
27	B. D. +37° 465	9	57 29.10	0.22	45.62	1 56 43.70	5.45	0 44 9.25	43.730	.675	A	0.9	38 4 13.0	31.1
28	B. D. +37° 468	9	57 57.22	0.22	45.62	1 57 11.82	−5.46	0 44 9.35	44.530	.435	B	0.8	38 10 24.4	−31.1
29	γ Andromedæ	10	58 36.53	+0.19	**−45.59**	1 57	....	357 0 9.25	43.	.485 .425		3.1	+41 51	....
30	B. D. +53° 460	9	4 16.82	+0.07	−45.62	2 3 31.27	−6.38	345 28 10.58	46.480	.470		15.6	+53 22 49.3	−34.5
31	β Trianguli	11	4 26.23	+0.25	**−45.61**	2 3	....	4 20 9.92	43.	.690 .650		4.6	+34 31	....
32	6 Persei	11	7 48.91	0.10	**45.65**	2 7	....	348 14 10.60	46.865 .875	....		12.5	50 36	....
33	B. D. +52° 549	9	9 20.05	+0.07	−45.62	2 8 34.50	−6.44	345 44 10.00	45.230	.130		15.3	+53 7 13.2	−33.9
34	Eros	10	12 36.22	+0.24	−45.62	2 11 50.84	....	2 14 9.15	46.860 .815	.710 .685		2.4	+36 36 25.6	....
35	B. D. +49° 743	9	35 17.23	+0.11	−45.62	2 34 31.72	−6.59	349 8 10.08	49.315	.215		11.5	+49 41 51.0	−30.2
36	B. D. +51° 618	9	36 31.09	0.09	45.62	2 35 45.56	6.75	347 22 10.20	45.700	.640		13.4	51 29 1.7	30.5
37	B. D. +51° 620	6	37 30.75	0.08	45.62	2 36 45.21	6.80	346 50 10.12	49.570	.555		14.0	51 59 47.4	30.5
38	B. D. +50° 617	8	38 16.59	0.10	45.62	2 37 31.07	6.72	348 2 10.08	47.360	.355		12.7	50 48 28.4	30.1
39	B. D. +51° 626	9	40 45.82	0.09	45.62	2 40 0.29	6.84	347 6 10.48	47.870	.840	B	13.8	51 47 34.6	30.0
40	B. D. +51° 628	10	40 58.79	+0.09	−45.62	2 40 13.26	−6.83	347 6 10.50	48.330	.270		13.7	+51 44 10.0	−30.0

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
4 0 39	29.98	33.6	34.1
1 20	29.975	32.2	33.7
1 50	29.98	31.8	32.9
2 22	29.98	31.4	32.8

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2.	Bisections at II, VI, VII.
3, 4, 5, 6, 7, 34.	Bisections at I, II, VI, VII.
8, 21, 22.	Bisections at I, III.
9, 13.	Bisections at V, VII.
10, 14, 15, 16, 40.	Bisections at V, VI.
11.	Bisection at III.
12, 29, 31.	Bisections at VI, VII.
18, 37, 38.	Bisections at IV, V.
27, 30, 32, 39.	Bisections at I, II.

Note.
Jan. 4. Seeing good.

Adopted Equator Point.... 4–40 38° 56′ 4″.08

No.	Eq. Points.
	° ′ ″
1	38 56 4.9
2	5.2
3	4.7
4	3.9
5	4.1
6	3.4
7	4.3
29	3.4
31	5.0
32	3.5

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+49° 773	7	41 57.45	+0.11	−45.62	2 41 11.94	−6.68	349 14 10.58	46.230	.110	B	11.5	+49 40 3.1	−29.4
2	B. D.+49° 782	9	43 51.15	0.11	45.62	2 43 5.64	6.70	349 14 9.80	47.605	.610		11.4	49 36 22.9	29.2
3	B. D.+45° 665	9	44 52.54	0.16	45.62	2 44 7.08	6.41	353 24 9.02	49.205	.130		6.9	45 25 49.3	28.0
4	B. D.+45° 669	9	45 47.80	0.16	45.62	2 45 2.34	−6.43	353 24 9.12	40.920	.900	C	7.0	45 34 53.3	−28.0
5	τ Persei	10	48 2.40	+0.08	**−45.64**	2 47	....	346 30 10.92	43.690 .670	.540 .445		14.4	+52 21	...
6	B. D.+45° 679	9	50 6.92	0.16	45.63	2 49 21.45	−6.48	353 24 9.78	47.175	.080		6.9	45 26 27.6	−27.4
7	γ Persei	11	58 25.78	0.07	**45.61**	2 57	....	345 44 10.62	44.770 .770	.605 .515		15.3	53 7	....
8	β Persei	11	2 31.31	+0.20	**−45.68**	3 1	....	358 16 9.02	46.460 .455	.265 .210		1.7	+40 34	....

KING, OBSERVER. 1901 JANUARY 7. CLAMP EAST. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
9	γ Andromedæ.....	11	58 37.98	+0.11	**−47.01**	1 57	....	357 0 8.52	43.700 .675	.555 .485		3.0	+41 51	....
10	β Trianguli	11	4 27.74	0.17	**47.09**	2 3	....	4 20 8.72	43.900 .875	.750 .705		4.5	34 31	....
11	6 Persei	11	7 50.32	0.02	**47.04**	2 7	....	348 14 9.50	46.895 .885	.725 .685		12.2	50 36	....
12	γ Trianguli	11	12 14.32	+0.18	**−47.07**	2 11	....	5 28 9.38	43.	.025 .940		5.7	+33 23	....
13	B. D.+50° 599	10	34 28.09	+0.01	−47.00	2 33 41.10	−6.64	347 42 8.40	46.085	.120	B	12.8	+51 12 9.3	−30.8
14	B. D.+50° 601	9	34 36.46	0.01	47.00	2 33 49.47	6.64	347 42 8.45	46.290	.240	B	12.8	51 12 4.3	30.8
15	B. D.+50° 613	9	37 33.85	0.01	46.99	2 36 46.87	6.67	347 42 8.70	41.985	.890	A	12.8	51 6 59.4	30.5
16	B. D.+50° 623	9	39 26.74	0.01	46.99	2 38 39.76	6.71	347 42 8.52	41.965	.860		12.8	51 10 14.8	30.3
17	B. D.+50° 630	9	41 59.83	+0.01	−46.98	2 41 12.86	−6.74	247 42 8.50	47.580	.605		12.8	+51 8 27.2	−30.0
18	B. D.+51° 633	9	43 22.00	+0.01	−46.98	2 42 35.03	−6.77	347 42 8.38	50.090	.080	C	12.9	+51 14 5.2	−29.8
19	B. D.+47° 709	9	44 14.80	0.05	46.98	2 43 27.87	6.51	351 4 8.60	43.890	.805	A	9.1	47 44 19.2	28.8
20	B. D.+47° 711	9	44 46.89	0.05	46.98	2 43 59.96	6.53	351 4 8.35	46.890	.765	C	9.3	47 53 1.6	28.8
21	B. D.+48° 782	9	46 32.48	+0.04	46.97	2 45 45.55	−6.64	349 46 9.30	42.935	.915		10.6	49 5 52.1	−28.9
22	τ Persei	11	48 3.82	0.00	**−47.08**	2 47	....	346 30 9.25	43. ... .770	.565 .420		14.1	+52 21	....
23	γ Persei	11	58 27.08	−0.02	**46.88**	2 57	....	345 44 8.68	44.850 .835	.740 .635		15.0	53 7	....
24	β Persei	11	2 32.67	+0.12	**−46.95**	3 1	....	358 16 8.62	46.415 .405	.250 .195		1.7	+40 34	....

KING, OBSERVER. 1901 JANUARY 8. CLAMP EAST. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
25	ο Cassiopeiæ......	11	40 0.89	−0.12	**−47.17**	0 39	....	351 6 8.85	46. ... .055	.900 .880		9.2	+47 44	....
26	γ Cassiopeiæ......	11	51 32.66	−0.20	**47.18**	0 50	....	338 40 8.88	45.725 .695	.575 .450		23.1	60 11	....
27	ξ Andromedæ.....	11	17 19.21	+0.01	**47.12**	1 16	....	353 50 7.55	45.920 .925	.735 .670		6.4	45 0	....
28	δ Cassiopeiæ......	11	20 9.37	−0.19	**−47.08**	1 19	....	339 8 8.58	44.515 .510	.360 .255		22.6	+59 43	....
29	B. D.+46° 370	9	24 58.59	0.00	−47.14	1 24 11.45	−5.26	352 20 7.72	48.485	.445		7.9	+46 30 6.3	−36.1
30	B. D.+50° 297	11	26 34.53	−0.05	47.14	1 25 47.34	5.48	347 52 7.52	45.660	.625	A	12.7	50 55 50.3	−37.2
31	B. D.+50° 300	5	27 41.59	−0.05	−47.14	1 26 54.40	−5.50	347 52	......	....		....	+50 58	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
4 3 1	29.97	31.5	32.2
7 1 55	29.90	42.1	43.1
2 29	29.91	41.5	42.7
3 4	29.92	40.8	41.2
8 0 42	29.98	40.1	39.6
1 20	29.965	39.4	38.9

Telescope micrometer bisections are made at III and V, except as noted below.

4, 14, 21.	Bisections at IV, V.
5, 7, 8, 9, 10, 11, 23, 24, 26, 27, 28.	Bisections at I, II, VI, VII.
12.	Bisections at VI, VII.
13, 17, 18, 29.	Bisections at I, II.
20.	Bisections at V, VII.
22, 25.	Bisections at II, VI, VII.
30.	Bisections at II, III.

Notes.

Jan. 7. Definition fair, but stars exceedingly unsteady.
8. Seeing poor at beginning; steadiness and definition much improved later.

Adopted Equator Point....	1– 8	38° 56′ 4″.08
	9–24	4 .11
	25–31	3 .93

No.	Eq. Points.
	° ′ ″
5	38 56 4.1
7	4.3
8	4.8
9	3.9
10	4.4
11	3.3
12	4.8
22	3.7
23	4.8
24	3.9
25	4.2
26	3.4
27	3.0
28	4.5

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER. READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+45° 376	9	28 53.04	+0.01	−47.14	1 28 5.91	−5.28	353 28 7.98	48.825	.785	C	6.8	+45 28 22.7	−35.5
2	B. D.+45° 383	10	30 8.42	+0.01	47.14	1 29 21.29	5.30	353 28 7.92	46.060	.050	A	6.7	45 19 36.0	35.4
3	B. D.+46° 397	8	31 11.37	−0.01	47.14	1 30 24.22	5.37	352 2 8.18	44.085	.040		8.3	46 49 29.7	35.7
4	B. D.+45° 394	8	32 17.70	+0.01	47.15	1 31 30.56	5.34	353 24 8.15	44.110	.065		6.8	45 27 26.9	35.3
5	B. D.+43° 337	10	33 32.27	0.03	47.15	1 32 45.15	5.28	355 16 7.08	43.870	.855	B	4.9	43 38 43.7	34.7
6	B. D.+43° 341	6	34 2.85	+0.03	−47.15	1 33 15.73	−5.29	355 16 7.25	44.215	.190	A	4.8	+43 32 7.9	−34.6
7	B. D.+44° 346	9	35 37.80	+0.02	−47.15	1 34 50.67	−5.34	354 34 7.92	45.290	.230		5.6	+44 17 3.9	−34.7
8	B. D.+42° 351	9	36 50.46	0.04	47.15	1 36 3.35	5.28	356 28 7.40	48.240	.140		3.6	42 22 6.2	34.1
9	B. D.+42° 360	9	38 57.72	0.04	47.15	1 38 10.61	5.33	356 6 7.50	46.085	.980		4.0	42 44 47.9	34.0
10	B. D.+42° 373	9	42 17.91	0.04	47.15	1 41 30.80	5.37	356 14 7.00	40.380	.335	A	3.8	42 35 23.8	33.7
11	B. D.+42° 375	9	42 48.30	+0.04	−47.15	1 42 1.19	−5.38	356 14 7.00	45.830	.815	C	4.0	+42 43 18.1	−33.7
12	B. D.+41° 353	9	44 6.83	+0.05	−47.15	1 43 19.73	−5.35	357 28 7.20	43.560	.475	C	2.7	+41 30 1.0	−33.2
13	B. D.+41° 362	8	47 35.69	0.05	47.16	1 46 48.58	5.39	357 28 6.85	40.235	.100	A	2.5	41 21 24.7	32.9
14	B. D.+39° 431	9	49 30.01	0.06	47.16	1 48 42.91	5.37	358 38 7.00	43.405	.360	A	1.3	40 10 23.3	32.4
15	B. D.+39° 434	10	49 45.18	0.06	47.16	1 48 58.08	5.37	358 38 7.05	44.475	.440		1.3	40 13 15.4	32.4
16	B. D.+40° 406	9	52 6.36	+0.06	−47.16	1 51 19.26	−5.41	358 38 7.15	43.360	.280	B	1.4	+40 16 50.9	−32.2
17	B. D.+39° 447	9	53 14.83	+0.06	−47.16	1 52 27.73	−5.41	358 46 6.70	39.620	.515	A	1.2	+40 3 35.1	−32.1
18	B. D.+39° 448	9	54 28.78	0.06	47.16	1 53 41.68	5.43	358 46 6.65	44.590	.515		1.2	40 5 14.3	32.0
19	B. D.+38° 402	9	59 35.94	0.07	47.16	1 58 48.85	5.45	359 56 6.98	46.495	.415	B	0.0	38 57 49.2	31.2
20	B. D.+38° 416	8	3 41.66	0.07	47.17	2 2 54.56	−5.50	359 56 7.28	41.615	.550	A	0.0	38 52 56.3	−30.8
21	*β* Trianguli........	11	4 27.84	+0.11	**−47.14**	2 3	....	4 20 7.98	43. ... .930	.770 .690		4.6	+34 31	....
22	6 Persei...........	11	7 50.41	0.05	**47.09**	2 7	....	348 14 8.38	47.025 46.975	.790 .715		12.3	50 36	....
23	*γ* Trianguli........	11	12 14.50	+0.12	**47.20**	2 11	....	5 28 7.90	43.240 .170	.035 .975		5.8	33 23	....
24	Eros............	11	23 53.57	+0.11	47.18	2 23 6.50	....	3 56 7.52	49.580 .565	.490 .450		4.2	34 53 32.4	....
25	B. D.+39° 609	9	36 31.06	+0.06	−47.19	2 35 43.93	−5.94	358 46 6.92	44.875	.795		1.2	+40 5 8.6	−27.8
26	B. D.+42° 613	9	37 58.22	0.04	47.19	2 37 11.07	6.10	356 4 7.30	44.300	.170		4.0	42 47 22.5	28.4
27	B. D.+40° 582	9	38 49.45	0.06	47.19	2 38 2.32	6.00	358 10 6.58	44.135	.065		1.8	40 41 23.6	27.7
28	B. D.+40° 589	9	40 22.13	+0.06	−47.19	2 39 35.00	−6.00	358 20 7.50	49.020	.960		1.6	+40 29 48.7	−27.4
29	B. D.+42° 628	9	41 46.65	+0.03	−47.19	2 40 59.49	−6.16	355 52 7.15	44.165	.085		4.2	+42 59 25.0	−28.0
30	B. D.+40° 602	9	42 57.54	0.06	47.19	2 42 10.41	6.04	358 24 7.85	43.160	.090	C	1.7	40 34 6.9	27.2
31	B. D.+40° 610	9	44 44.87	0.06	47.19	2 43 57.74	6.05	358 24 8.00	42.255	.190	A	1.5	40 24 43.2	26.9
32	B. D.+42° 643	8	46 59.67	+0.04	−47.20	2 46 12.51	−6.18	356 28 7.88	48.735	.720		3.6	+42 21 56.8	−27.2
33	*τ* Persei...........	10	48 4.10	−0.07	**−47.26**	2 47	....	346 30 7.78	43.795 .705	.675 .610		14.3	+52 21	....
34	*γ* Persei...........	11	58 27.47	−0.08	**47.28**	2 57	....	345 44 8.60	44.805 .800	.685 .590		15.1	53 7	....
35	*β* Persei...........	11	2 32.96	+0.06	**−47.19**	3 1	....	358 16 7.12	46.525 .510	.370 .305		1.7	+40 34	....

1901 JANUARY 9. CLAMP EAST.

KING, OBSERVER.

HAMMOND, ASSISTANT.

36	*o* Cassiopeiæ......	11	40 1.12	−0.05	**−47.49**	0 39	....	351 6 8.42	46.175 .140	.995 .920		9.0	+47 44	....
37	*γ* Cassiopeiæ......	11	51 33.04	0.24	**47.51**	0 50	....	338 40 8.20	45.795 .805	.690 .580		22.6	60 11	....
38	*ξ* Andromedæ.....	11	17 19.56	0.02	**47.46**	1 16	....	353 50 7.55	46.020 .000	.880 .795		6.2	45 0	....
39	*δ* Cassiopeiæ......	11	20 9.79	−0.23	**−47.49**	1 19	....	339 8 8.05	44.625 .605	.450 .370		22.1	+59 43	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
8 1 50	29.96	38.8	38.3	1, 4, 5, 11, 15, 19.	Bisections at IV, V.	21	38 56 4.2
2 21	29.95	38.2	37.7	2.	Bisections at II, III.	22	3.7
3 1	29.965	37.9	37.0	3.	Bisections at III, IV.	23	3.9
9 0 38	29.94	52.0	51.4	6.	Bisections at V, VI.	33	4.1
				10, 14, 20, 32.	Bisections at I, II.	34	3.8
				21.	Bisections at II, VI, VII.	35	4.5
				22, 23, 24, 34, 35, 36, 37, 38, 39.	Bisections at I, II, VI, VII.	36	5.4
				33.	Bisections at II, V, VI, VII.	37	5.3
						38	5.4
						39	6.4

Adopted Equator Point....1–35 38° 56′ 3″.93

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D.+46° 373	8	25 40.83	−0.04	−47.57	1 24 53.22	−5.28	351 48 8.00	43.645	.640		8.3	+47 3 40.8	−36.2
2	B. D.+50° 297	8	26 34.94	0.09	47.57	1 25 47.28	5.45	347 52 8.45	45.610	.585	A	12.4	50 55 51.8	37.1
3	B. D.+50° 300	9	27 41.88	0.09	47.57	1 26 54.22	5.47	347 52 8.50	46.850	.815		12.4	50 58 42.8	37.1
4	B. D.+49° 412	9	28 42.49	0.07	47.58	1 27 54.84	5.43	349 14 7.90	43.755	.705		11.0	49 37 40.5	36.6
5	B. D.+45° 379	7	29 26.22	−0.03	−47.58	1 28 38.61	−5.29	352 50 7.72	44.540	.470		7.3	+46 1 21.8	−35.6
6	B. D.+46° 389	9	30 23.53	−0.03	−47.58	1 29 35.92	−5.32	352 28 7.80	44.335	.225		7.6	+46 23 26.6	−35.6
7	B. D.+47° 462	9	31 25.90	0.05	47.58	1 30 38.27	5.39	351 16 8.30	47.770	.735		8.9	47 34 20.9	35.9
8	B. D.+49° 418	4	31 49.55	0.07	47.59	1 31 1.89	5.47	349 24 7.05	47.920	.850		10.8	49 26 19.0	36.4
9	B. D.+44° 335	5	32 58.18	0.01	47.59	1 32 10.58	5.28	354 32 6.82	45.230	.195		5.5	44 19 5.3	34.9
10	B. D.+43° 343	9	34 13.90	−0.01	−47.59	1 33 26.30	−5.28	354 58 7.48	44.810	.800		5.1	+43 53 14.1	−34.7
11	B. D.+44° 347	9	35 40.95	−0.01	−47.60	1 34 53.34	−5.33	354 20 7.58	44.420	.315		5.7	+44 31 23.3	−34.7
12	B. D.+41° 329	4	37 9.48	+0.02	47.60	1 36 21.90	5.24	357 24	......	....		...	41 26	....
13	B. D.+40° 364	7	41 30.07	+0.02	47.62	1 40 42.47	−5.28	357 50	......	....		...	41 3	....
14	2 Persei	4	46 41.07	−0 08	**47.67**	1 45	....	348 34 7.62	41.305	....		11.7	50 18	....
15	*γ* Andromedæ.....	12	58 38.72	+0.01	**−47.68**	1 57	....	357 0 7.65	43.820 .685	.655 .600		3.0	+41 51	....
16	*β* Trianguli	7	4 28.44	+0.08	**−47.73**	2 3	....	4 20 7.45	44.090	.980		4.5	+34 31	....
17	6 Persei	10	7 50.96	−0.09	**−47.63**	2 7	....	348 14 8.30	47.050 ...	.000 .840		12.1	+50 36	....

1901 JANUARY 15. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

18	*o* Cassiopeiæ	11	40 2.21	−0.05	**−48.71**	0 39	....	351 6 7.00	46.250 .245	.115 .045		8.9	+47 44	....
19	*γ* Cassiopeiæ	11	51 34.10	0.21	**48.79**	0 50	....	338 40 7.68	45.820 .835	.710 .615		22.2	60 11	....
20	*ξ* Andromedæ.....	11	17 20.81	0.02	**48.85**	1 16	....	353 50 7.45	46.030 .015	.870 .780		6.1	45 0	....
21	*δ* Cassiopeiæ	11	20 10.91	−0.20	**48.84**	1 19	....	339 8 8.72	44. ... .520	.375 .290		21.7	+59 43	....
22	B. D.+45° 379	9	29 27.29	−0.03	−48.80	1 28 38.46	−5.17	352 50 7.80	44.570	.545		7.1	+46 1 21.6	−35.4
23	B. D.+49° 416	8	31 0.05	0.08	48.80	1 30 11.17	5.35	348 38 8.52	45.890	.820		11.4	50 12 59.8	36.5
24	B. D.+44° 335	9	32 59.10	−0.02	48.80	1 32 10.28	5.16	354 32 6.78	45.360	.285		5.4	44 19 5.4	34.7
25	B. D.+41° 329	9	37 10.62	+0.01	48.80	1 36 21.83	5.12	357 24 7.28	48.615	.515		2.5	41 25 59.8	33.5
26	B. D.+53° 388	9	42 29.93	−0.11	48.80	1 41 41.02	5.72	345 28 7.98	42.885	.800		14.8	53 24 1.2	36.5
27	B. D.+43° 373	9	44 5.38	−0.01	−48.80	1 43 16.57	−5.28	355 36 6.65	46.200	.115		4.3	+43 14 48.5	−33.6
28	B. D.+53° 402	9	46 6.34	−0.11	−48.80	1 45 17.43	−5.78	345 28 8.48	46.275	.200		14.8	+53 22 55.6	−36.2
29	B. D.+54° 415	9	50 3.36	−0.13	48.80	1 49 14.43	5.96	343 46 7.58	43.765	.675		16.6	55 5 46.6	36.4
30	B. D.+40° 421	9	55 35.45	+0.01	48.80	1 54 46.66	5.35	357 58 7.52	45.130	.100		2.0	40 53 6.9	32.0
31	B. D.+53° 437	9	56 17.72	−0.11	48.80	1 55 28.81	5.98	345 18 7.70	47.340	.240		15.0	53 32 36.5	35.5
32	B. D.+55° 484	9	57 59.15	−0.14	−48.80	1 57 10.21	−6.13	343 34 7.40	43.715	.620		16.8	+55 17 48.1	−35.8
33	*β* Trianguli	11	4 29.44	+0.06	**−48.80**	2 3	....	4 20 7.18	44.110 .065	.930 .875		4.4	+34 31	....
34	6 Persei..........	11	7 52.00	−0.08	**−48.88**	2 7	....	348 14 7.62	47.130 .120	.995 .900		11.9	+50 36	....
35	B. D.+51° 616	9	36 17.19	−0.09	−48.80	2 35 28.30	−6.55	346 50 8.20	46.430	.330		13.4	+52 0 52.2	−31.2
36	B. D.+51° 620	9	37 33.68	0.09	48.80	2 36 44.79	6.57	346 50 8.22	49.750	.675		13.4	51 59 48.2	31.0
37	B. D.+48° 750	9	39 51.52	0.06	48.80	2 39 2.66	6.35	350 18 6.98	47.035	.940		9.7	48 32 38.0	29.9
38	B. D.+43° 576	9	41 53.85	−0.02	−48.80	2 41 5.03	−6.09	355 0 7.42	43.630	.540		5.0	+43 51 38.2	−28.4

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
9 1 20	29.95	50.2	49.7
2 6	29.97	48.2	47.7
15 0 37	29.58	52.9	53.3
1 25	29.59	51.3	52.0
1 59	29.59	50.4	51.0

Telescope micrometer bisections are made at III and V, except as noted below.

1, 30.	Bisections at I, II.
2, 3, 22.	Bisections at II, III,
5, 10.	Bisections at IV, V.
8, 9, 13.	Bisections at VI, VII.
14.	Bisection at I.
15.	Bisections at I, V, VI, VII.
16.	Bisections at I, V.
17.	Bisections at I, IV, VII.
18, 19, 20, 33, 34.	Bisections at I, II, VI, VII.
21.	Bisections at II, VI, VII.
23.	Bisections at III, IV.

No.	Eq. Points.
	° ′ ″
14	38 56 6.5
15	5.2
16	6.7
17	5.4
18	5.6
19	5.4
20	4.9
21	5.8
33	6.3
34	6.3

Notes.

Jan. 9. Seeing fairly good, when clouds did not interfere.
15. Thin clouds just at beginning; seeing very good after that.

Adopted Equator Point....		38° 56′ 5″.79
1–17		38° 56′ 5″.79
18–38	$1^h.040$	5 .42
	2 .602	6 .20

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	B. D. +47° 702	9	43 14.52	−0.04	−48.80	2 42 25.68	−6.31	351 38 7.55	45.785	.695		8.4	+47 13 0.2	−29.2
2	B D. +46° 644	9	44 29.79	0.04	48.80	2 43 40.95	6.32	351 50 7.25	47.795	.730		8.2	47 0 21.5	29.0
3	B. D. +47° 714	9	45 35.23	0.05	48.80	2 44 46.38	6.40	350 50 7.22	50.260	.175	C	9.3	48 6 1.5	29.1
4	B. D. +47° 721	8	46 46.34	−0.05	−48.80	2 45 57.49	−6.42	350 50 7.28	45.770	.735		9.2	+48 1 0.7	−29.0
5	τ Persei	11	48 5.53	−0.10	**−48.81**	2 47	....	346 30 7.60	43.	.770 .695		13.8	+52 21	....
6	γ Persei	11	58 28.94	−0.11	**48.81**	2 57	....	345 44 8.18	44.875 .890	.740 .660		14.6	53 7	....
7	β Persei	11	2 34.45	+0.01	**−48.74**	3 1	....	358 16 7.55	46.570 .560	.370 .330		1.7	+40 34	....
	KING, OBSERVER.					1901 JANUARY 16.		CLAMP EAST.					HAMMOND, ASSISTANT.	
8	γ Cassiopeiæ	11	51 34.29	−0.24	**−48.99**	0 50	....	338 40 7.85	45.940 .920	.770 .685		21.7	+60 11	....
9	ξ Andromedæ.....	11	17 20.92	0.06	**48.93**	1 16	....	353 50 6.80	46.200 .180	.015 .960		6.0	45 0	....
10	δ Cassiopeiæ	11	20 11.01	−0.23	**−48.94**	1 19	....	339 8 8.60	44.640 .650	.475 .435		21.3	+59 43	....
11	B. D. +49° 412	9	28 43.64	−0.11	−48.94	1 27 54.59	−5.27	349 14 6.82	43.975	.890		10.6	+49 37 39.5	−36.4
12	B. D. +49° 416	9	31 0.18	0.11	48.94	1 30 11.13	5.33	348 38 7.75	46.010	.985		11.2	50 12 59.2	36.4
13	B. D. +49° 418	10	31 50.84	0.10	48.94	1 31 1.80	5.32	349 24 7.22	48.015	.930		10.4	49 26 19.5	36.2
14	B. D. +41° 329	9	37 10.89	0.04	48.94	1 36 21.91	−5.10	357 24 6.58	48.860	.815		2.5	41 25 59.0	−33.5
15	φ Persei...........	11	38 17.86	−0.11	**−48.98**	1 37	....	348 40 8.12	43.835 .825	.640 .575		11.2	+50 11	....
16	B. D. +40° 364	9	41 31.21	−0.03	−48.94	1 40 42.24	−5.15	357 46 7.08	49.875	.775		2.1	+41 3 37.7	−33.1
17	B. D. +40° 384	9	46 31.44	0.03	48.94	1 45 42.47	5.22	357 50 6.98	44.590	.460	A	2.0	40 58 4.6	32.7
18	B. D. +40° 390	9	47 43.26	0.03	48.94	1 46 54.29	5.23	357 50 6.90	48.735	.640		2.0	40 59 59.6	32.6
19	B. D. +40° 401	9	49 33.13	−0.03	−48.94	1 48 44.16	−5.26	357 42 7.15	43.975	.880		2.2	+41 9 30.9	−32.5
20	B. D. +39° 457	9	58 39.52	−0.02	−48.93	1 57 50.57	−5.32	359 16 6.50	45.465	.370		0.6	+39 35 1.3	−31.3
21	B. D. +38° 408	9	1 16.86	0.01	48.93	2 0 27.92	5.31	0 26 6.62	42.970	.850		0.5	38 25 49.2	30.7
22	B. D. +37° 488	9	3 48.81	−0.01	48.93	2 2 59.87	−5.33	0 48 7.40	42.840	.790		0.8	38 3 50.0	−30.4
23	β Trianguli	11	4 29.57	+0.01	**−48.90**	2 3	....	4 20 7.42	44.035	.955		4.3	+34 31	....
24	6 Persei	11	7 52.11	−0.12	**−48.91**	2 7	....	348 14 7.58	47.240 .230	.045 .980		11.6	+50 36	....
25	B. D. +39° 613	10	37 9.08	−0.02	−48.92	2 36 20.14	−5.78	359 28 7.32	47.425	.410		0.4	+39 22 23.0	−27.6
26	B. D. +51° 620	8	37 33.94	0.13	48.92	2 36 44.89	6.55	346 50 8.60	49.775	.660		13.1	51 59 48.0	31.1
27	B. D. +40° 581	6	38 47.86	0.03	48.92	2 37 58 91	5.85	358 36 6.60	43.555	.530	C	1.4	40 22 2.0	27.7
28	B. D. +39° 628	9	40 32.91	0.03	48.92	2 39 43.96	5.86	358 36 6.40	45.080	.070	A	1.3	40 11 54.4	27.5
29	B. D. +41° 538	9	41 37.62	0.04	48.92	2 40 48.66	5.96	357 6 6.88	43.200	.210		2.8	41 45 46.6	−27.8
30	B. D. +41° 541	9	42 21.32	−0.04	−48.92	2 41 32.36	−5.95	357 24	......	....		....	+41 27	....
31	B. D. +41° 543	9	43 7.66	−0.04	−48.92	2 42 18.70	−5.99	356 50 6.88	47.850	.825		3.0	+42 0 16.6	−27.7
32	B. D. +41° 550	9	45 2.47	0.04	48.92	2 44 13.51	5.99	357 18 7.85	47.880	.860		2.6	41 32 16.4	27.4
33	B. D. +47° 714	9	45 35.50	0.09	48.92	2 44 46.49	6.39	350 44 7.68	48.945	.850		9.1	48 6 1.9	29.2
34	B. D. +41° 556	9	46 49.83	−0.04	48.92	2 46 0.87	−6.01	357 14 7.70	45.520	.460		2.6	41 37 0.7	−27.2
35	Eros............	11	48 45.57	+0.03	−48.91	2 47 56.69	....	7 20 6.92	51.185 .170	.055 .025		7.4	+31 29 3.5	....
36	γ Persei	11	58 29.04	−0.14	**−48.91**	2 57	....	345 44 7.92	45.015 .995	.840 .775		14.3	+53 7	....
37	β Persei	11	2 34.70	−0.03	**−48.96**	3 1	....	358 16 6.65	46.745 .700	.535 .465		1.6	+40 34	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
15 3 3	29.60	48.8	49.1
16 1 10	29.36	58.0	59.0
2 0	29.37	56.2	56.9
2 29	29.38	55.3	55.9
3 3	29.385	54.1	55.0

Telescope micrometer bisections are made at III and V, except as noted below.

4, 12, 31.	Bisections at IV, V.
5, 23, 27.	Bisections at VI, VII.
6, 7, 8, 9, 10, 15, 24, 35, 36, 37.	Bisections at I, II, VI, VII.
13.	Bisections at V, VII.
14, 32.	Bisections at I, II.
22, 25, 29.	Bisections at II, III.
26.	Bisections at V, VI.
28.	Bisections at III, IV.

Note.
Jan. 16. Excellent seeing.

Adopted Equator Point.... 1– 7 {1h.040 38° 56′ 5″.42
2 .602 6 .20
8–37 7 .96

No.	Eq. Points.
	° ′ ″
5	38 56 6.8
6	5.8
7	5.8
8	7.6
9	7.5
10	8.4
15	7.8
23	8.3
24	8.2
36	8.0
37	7.9

1901 JANUARY 18. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	ξ Andromedæ.....	11	17 20.89	+0.17	**−49.37**	1 16	....	353 50 6.92	46.050 .030	.865 .830		6.5	+45 0	....
2	δ Cassiopeiæ......	11	20 10.95	+0.02	**−49.20**	1 19	....	339 8 8.45	44.595 .590	.430 .355		23.1	+59 43	....
3	B. D.+46° 393	9	30 53.33	+0.16	−49.23	1 30 4.26	−5.15	352 14 7.42	46.375	.305		8.2	+46 36 47.0	−35.3
4	B. D.+46° 404	9	32 7.06	0.16	49.23	1 31 17.99	−5.16	352 24 7.78	46.025	.840		8.1	46 26 54.4	−35.2
5	τ Andromedæ.....	11	35 34.50	+0.21	**−49.20**	1 34	....	358 46 7.18	46.090 .070	.865 .795		1.2	+40 4	....
6	φ Persei...........	11	38 17.78	+0.13	**−49.14**	1 37	....	348 40 8.30	43.725 .715	.590 .505		12.2	+50 11	....
7	B. D.+53° 398	3	44 55.35	+0.10	−49.24	1 44 6.21	−5.67	345 36	......	....		....	+53 15 .. .	....
8	B. D.+53° 402		.. ..	....	.....	1 45	....	345 28 8.90	46.175	.145		15.7	53 22 55.2	−36.2
9	B. D.+54° 417		.. ..	....	.....	1 49	....	343 40 8.10	47.650	.610		17.8	55 10 31.2	36.3
10	B. D.+41° 377	9	52 3.65	0.20	49.24	1 51 14.61	5.26	357 34 8.30	44.840	.780		2.5	41 17 9.8	32.3
11	B. D.+40° 415	9	54 33.38	0.20	49.24	1 53 44.34	5.28	357 58 8.25	47.240	.185		2.1	40 52 23.4	31.9
12	B. D.+40° 423	9	56 3.26	+0.20	−49.24	1 55 14.22	−5.30	358 6 7.78	47.915	.830		1.9	+40 44 11.0	−31.8
13	B. D.+52° 616	9	36 52.49	+0.10	−49.27	2 36 3.32	−6.58	345 44 7.55	47.665	.650		15.5	+53 6 30.0	−31.5
14	B. D.+51° 620	9	37 33.97	0.11	49.27	2 36 44.81	6.50	346 52 8.88	43.465	.365		14.2	51 59 47.6	31.1
15	B. D.+43° 574	9	40 55.95	0.18	49.27	2 40 6.86	6.00	355 30 7.60	45.120	.020		4.7	43 21 7.7	28.4
16	B. D.+41° 541	9	42 21.43	0.20	49.27	2 41 32.36	5.91	357 24 8.00	44.220	.145		2.7	41 27 22.3	27.6
17	B. D.+47° 702	9	43 14.75	0.15	49.27	2 42 25.63	6.25	351 38 8.42	45.690	.660		8.9	47 12 59.1	29.2
18	B. D.+47° 711	9	44 48.68	+0.15	−49.27	2 43 59.56	−6.32	350 58 8.38	45.555	.450		9.7	+47 53 3.6	−29.2
19	τ Persei...........	11	48 5.69	+0.10	**−49.24**	2 47	....	346 30 8.78	43.755 .750	.655 .580		14.6	+52 21	....
20	Eros............	11	55 22.51	0.27	49.28	2 54 33.50	....	8 12 8.00	46.745 .720	.630 .625		8.9	30 38 22.6	....
21	γ Persei...........	11	58 29.13	0.10	**49.28**	2 57	....	345 44 8.72	44.805 .820	.700 .625		15.5	53 7	....
22	β Persei...........	11	2 34.78	+0.20	**−49.31**	3 1	....	358 16 7.60	46.485 .450	.305 .260		1.8	+40 34	....

1901 JANUARY 22. CLAMP EAST.

KING, OBSERVER. HAMMOND, ASSISTANT.

23	B. D.+53° 398	9	44 57.36	−0.06	−51.22	1 44 6.08	−5.60	345 36 7.98	44.920	.925		15.2	+53 15 21.1	−36.6
24	2 Persei	11	46 44.26	−0.03	**−51.21**	1 45	....	348 32 8.12	47.405 .370	.295 .205		12.0	+50 18	....
25	γ Andromedæ.....	11	58 41.87	+0.05	**−51.12**	1 57	....	357 0 7.75	43.750 .745	.610 .570		3.1	+41 51	....
26	β Trianguli	11	4 31.77	+0.11	**51.30**	2 3	....	4 20 7.58	43.970 .950	.815 .730		4.6	34 31	....
27	6 Persei	11	7 54.29	−0.03	**−51.32**	2 7	....	348 14 8.52	46.985 .980	.835 .760		12.4	+50 36	....
28	B. D.+49° 753	9	37 45.58	−0.03	−51.27	2 36 54.28	−6.32	348 40 7.92	46.390	.425		11.9	+50 10 49.4	−31.1
29	B. D.+48° 746	9	38 19.48	0.01	51.27	2 37 28.20	6.24	350 2 7.85	46.260	.175		10.4	48 48 50.3	30.6
30	B. D.+48° 752	9	40 33.12	0.01	51.28	2 39 41.83	6.28	349 54 8.50	46.135	.055		10.6	48 56 52.2	30.4
31	B. D.+48° 760	9	42 23.17	−0.01	−51.28	2 41 31.88	−6.30	350 2 7.65	47.070	.060		10.4	+48 48 35.6	−30.2
32	B. D.+48° 762	9	42 59.04	−0.01	−51.28	2 42 7.75	−6.31	350 2 7.68	43.520	.435	A	10.4	+48 46 28.3	−30.1
33	B. D.+48° 763	9	43 25.36	0.01	51.28	2 42 34.07	6.32	350 2 7.80	41.475	.320	B	10.5	48 53 34.2	30.1
34	B. D.+48° 770	9	45 17.44	0.01	51.28	2 44 26.15	−6.36	349 54 8.78	46.740	.690		10.6	48 56 38.8	−29.9
35	τ Persei...........	11	48 7.84	−0.05	**−51.34**	2 47	....	346 30 8.48	43.780 .730	.615 .565		14.3	+52 21	....

Time.	Barom.	Att. Ther.	Ex. Ther.
d h m	in.	°	°
18 1 15	29.74	26.0	24.7
2 0	29.76	24.8	23.4
2 34	29.775	24.0	22.9
3 8	29.78	23.0	22.3
22 1 30	30.02	40.4	40.0
2 3	30.03	39.1	38.9
2 29	30.03	38.8	38.3
3 11	30.03	37.5	37.9

Telescope micrometer bisections are made at III and V, except as noted below.

1, 2, 5, 6, 19, 20, 21, 22, 24, 25, 26, 27, 35.	Bisections at I, II, VI, VII.
8, 34.	Bisections at V, VI.
13, 23, 28, 31.	Bisections at I, II.
17.	Bisections at IV, V.
33.	Bisections at V, VII.

Notes.

Jan. 18. Seeing quite unsteady at first, but excellent at end.
22. Stars somewhat unsteady and not well defined.

Adopted Equator Point.... 1–22 38° 56′ 4″.66
23–35 3 .90

No.	Eq. Points.
	° ′ ″
1	38 56 4.2
2	5.2
5	4.8
6	5.2
19	4.5
21	4.5
22	4.2
24	3.6
25	3.9
26	4.0
27	3.9
35	4.3

NO.	NAME.	THDS.	MEAN THREAD.	INST. COR.	CLOCK COR.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROMETER READINGS.			REFR.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	r		″	° ′ ″	″
1	γ Persei...........	11	58 31. 21	—0. 06	—51. 30	2 57	....	345 44 8. 12	44. 815 . 810	. 680 . 615		15. 1	+53 7	....
2	β Persei...........	10	2 36. 90	0. 07	51. 28	3 1	....	358 16 7. 48	46. 420 . 410	. 260 . 225		1. 7	40 34	....
3	Eros.............	9	9 2. 71	+0. 14	—51. 30	3 8 11. 55	....	9 52 8. 45	48. 800	....		10. 5	+28 57 39. 4	....
	KING, OBSERVER.			1901 JANUARY 29.				CLAMP EAST.					HAMMOND, ASSISTANT.	
4	2 Persei...........	11	46 48. 17	+0. 06	—55. 39	1 45	....	348 34 8. 32	40.	. 945 . 835		12. 0	+50 18	....
5	γ Andromedæ.....	11	58 45. 88	0. 16	55. 38	1 57	....	357 0 7. 52	43. 685 . 670	. 550 . 495		3. 1	41 51	....
6	β Trianguli	11	4 35. 63	0. 23	55. 40	2 3	....	4 20 7. 98	43. 870 . 840	. 690 . 650		4. 6	34 31	....
7	6 Persei...........	11	7 58. 09	+0. 05	—55. 38	2 7	....	348 14 8. 50	46. 945 . 920	. 755 . 670		12. 3	+50 36	....
8	B. D.+50° 613	9	37 41. 92	+0. 04	—55. 41	2 36 46. 55	—6. 17	347 44 7. 78	45. 860	. 770		12. 9	+51 6 59. 5	—30. 8
9	B. D.+50° 623	9	39 34. 50	0. 04	55. 41	2 38 39. 13	6. 20	347 44 7. 58	45. 695	. 650	B	13. 0	51 10 15. 8	30. 6
10	B. D.+50° 630	9	42 7. 72	0. 04	55. 41	2 41 12. 35	6. 24	347 42 7. 92	47. 545	. 480		12. 9	51 8 26. 9	30. 4
11	B. D.+51° 633	9	43 29. 90	0. 04	55. 41	2 42 34. 53	6. 26	347 36 8. 65	48. 640	. 550		13. 0	51 14 5. 5	30. 3
12	B. D.+47° 709	9	44 22. 81	+0. 09	—55. 41	2 43 27. 49	—6. 06	351 6 7. 75	47. 765	. 685		9. 2	+47 44 19. 0	—29. 2
13	τ Persei...........	11	48 11. 69	+0. 02	—55. 45	2 47	....	346 30 8. 32	43. 760 . 700	. 595 . 530		14. 3	+52 21	....
14	γ Persei...........	11	58 35. 05	0. 01	55. 39	2 57	....	345 44 8. 38	44. 750 . 730	. 600 . 515		15. 1	53 7	....
15	β Persei...........	11	2 40. 72	+0. 17	—55. 42	3 1	....	358 16 7. 90	46. 440 . 390	. 200 . 140		1. 7	+40 34	....

Time.	Barom.	Att. Ther.	Ex. Ther.	Telescope micrometer bisections are made at III and V, except as noted below.		No.	Eq. Points.
d h m	in.	°	°				° ′ ″
29 1 44	29. 60	35. 0	33. 9	1, 2, 5, 6, 7, 13, 14, 15.	Bisections at I, II, VI, VII.	1	38 56 4. 3
2 8	29. 60	33. 5	33. 0	3.	Bisection at IV.	2	3. 3
2 35	29. 60	32. 8	32. 1	4.	Bisections at VI, VII.	4	1. 8
3 1	29. 605	32. 0	31. 8	12.	Bisections at IV, V.	5	1. 9
						6	2. 0
				Note. Jan. 29. Good seeing.		7	2. 2
						13	3. 5
					Adopted Equator Point....1– 3 38° 56′ 3″.90	14	3. 0
					4–15 { $1^{h}.992$ 1 .98	15	2. 9
					2 .940 3 .13		

RESULTS

OF

OBSERVATIONS.

INDIVIDUAL RESULTS

OF

OBSERVATIONS OF EROS REFERENCE STARS.

REDUCED TO 1900.0.

B. D. +49° 399

1900	h	m	s	°	′	″
Sept. 24	1	24	0.52	+49	25	30.4
Oct. 21			0.51			30.8
Dec. 6			0.44			30.6
28			0.53			30.2
Mean	1	24	0.50	+49	25	30.5

B. D. +46° 370

1900	h	m	s	°	′	″
Oct. 11	1	24	6.13	+46	29	28.2
Nov. 12			6.08			28.4
Dec. 10			6.04			29.0
1901						
Jan. 8			6.18			30.4
Mean	1	24	6.11	+46	29	29.0

B. D. +51° 317

1900	h	m	s	°	′	″
Sept. 16	1	24	26.38	+51	34	. .
Oct. 15			26.16			42.1
Nov. 17			26.10			41.5
Dec. 19			26.12			41.9
Mean	1	24	26.19	+51	34	41.8

B. D. +47° 429

1900	h	m	s	°	′	″
Oct. 9	1	24	33.63	+47	22	51.3
Nov. 5			33.63			50.3
Dec. 12			33.43			51.5
1901						
Jan. 2			33.58			51.4
Mean	1	24	33.57	+47	22	51.1

B. D. +49° 401

1900	h	m	s	°	′	″
Sept. 19	1	24	37.92	+50	9	7.8
Oct. 19			37.84			6.6
Nov. 22			37.89			7.3
Dec. 21			37.76			7.1
Mean	1	24	37.85	+50	9	7.2

B. D. +49° 400

1900	h	m	s	°	′	″
Sept. 19	1	24	38.49	+50	5	54.4
Oct. 19			38.46			56.3
Dec. 11			38.55			55.8
21			38.34			56.4
Mean	1	24	38.46	+50	5	55.7

B. D. +46° 373

1900	h	m	s	°	′	″
Oct. 10	1	24	48.00	+47	3	4.7
Nov. 9			47.97			4.4
Dec. 13			47.99			4.5
1901						
Jan. 9			47.90			4.8
Mean	1	24	47.96	+47	3	4.6

B. D. +47° 434^1

1900	h	m	s	°	′	″
Oct. 21	1	24	51.70	+47	54	4.5
29			51.80			4.2
Nov. 27			51.90			5.3
1901						
Jan. 4			51.59			4.6
Mean	1	24	51.75	+47	54	4.6

B. D. +49° 403

1900	h	m	s	°	′	″
Sept. 23	1	24	52.34	+49	54	48.6
Oct. 20			52.30			49.4
Dec. 5			52.28			48.6
26			52.23			48.9
Mean	1	24	52.29	+49	54	48.9

B. D. +47° 434^2

1900	h	m	s	°	′	″
Oct. 21	1	24	53.60	+47	54	12.9
29			53.70			12.4
Nov. 27			53.78			13.3
1901						
Jan. 4			53.65			13.3
Mean	1	24	53.68	+47	54	13.0

B. D. +48° 453

1900	h	m	s	°	′	″
Sept. 25	1	24	54.37	+48	49	42.5
Oct. 24			54.42			42.3
Nov. 30			54.33			43.0
1901						
Jan. 3			54.28			42.5
Mean	1	24	54.35	+48	49	42.6

B. D. +48° 454

1900	h	m	s	°	′	″
Sept. 26	1	25	25.96	+48	31	27.7
Oct. 26			26.07			27.6
Dec. 11			26.00			28.1
1901						
Jan. 3			25.89			27.8
Mean	1	25	25.98	+48	31	27.8

B. D. +48° 455

1900	h	m	s	°	′	″
Sept. 27	1	25	. . . . .	+48	16	16.8
Oct. 10			26.45			17.6
27			26.46			17.8
Dec. 14			26.27			18.3
1901						
Jan. 2			26.47			18.6
Mean	1	25	26.41	+48	16	17.8

B. D. +50° 297

1900	h	m	s	°	′	″
Sept. 19	1	25	41.79	+50	55	13.7
23			41.95			14.0
Oct. 16			41.76			14.4
Nov. 21			41.61			14.4
Dec. 28			41.86			13.8
1901						
Jan. 8			41.79			13.3
9			41.76			14.9
Mean	1	25	41.79	+50	55	14.1

B. D. +51° 323

1900	h	m	s	°	′	″
Sept. 16	1	25	46.75	+51	57	. .
Oct. 15			46.52			17.9
Nov. 17			46.48			17.8
Dec. 19			46.59			17.6
Mean	1	25	46.58	+51	57	17.8

B. D. +50° 298

1900	h	m	s	°	′	″
Sept. 25	1	26	12.88	+50	38	51.8
Oct. 24			12.74			52.1
Nov. 30			12.75			52.6
Dec. 21			12.68			52.3
Mean	1	26	12.76	+50	38	52.2

B. D. +47° 442

1900	h	m	s	°	′	″
Oct. 6	1	26	17.11	+47	54	12.7
29			16.93			13.3
Nov. 27			17.02			13.0
1901						
Jan. 4			16.89			12.5
Mean	1	26	16.99	+47	54	12.9

B. D. +50° 299

1900	h	m	s	°	′	″
Oct. 9	1	26	22.55	+50	18	35.1
Nov. 5			22.61			34.7
Dec. 12			22.65			35.6
26			22.62			34.5
Mean	1	26	22.61	+50	18	35.0

B. D. +50° 300

1900	h	m	s	°	′	″
Sept. 18	1	26	48.68	+50	58	4.1
Oct. 16			48.77			4.7
Nov. 21			48.82			5.1
Dec. 28			48.80			5.3
1901						
Jan. 8			48.83			. .
9			48.68			5.9
Mean	1	26	48.76	+50	58	5.0

B. D. +50° 301

1900	h	m	s	°	′	″
Oct. 9	1	26	59.88	+50	22	2.0
Nov. 5		27	0.01			1.5
Dec. 13			0.07			1.3
26		26	59.99			1.6
Mean	1	26	59.99	+50	22	1.6

B. D. +48° 463

1900	h	m	s	°	′	″
Sept. 26	1	27	16.30	+48	30	19.6
Oct. 26			16.29			18.2
Dec. 11			16.24			20.1
1901						
Jan. 2			16.30			20.2
Mean	1	27	16.28	+48	30	19.5

B. D. +49° 412

1900	h	m	s	°	′	″
Sept. 24	1	27	49.39	+49	37	3.3
Oct. 21			49.27			3.5
1901						
Jan. 4			49.42			3.6
9			49.35			4.1
16			49.26			3.3
Mean	1	27	49.34	+49	37	3.6

B. D. +51° 331

1900	h	m	s	°	′	″
Sept. 26	1	27	58.79	+51	19	13.7
Oct. 26			58.80			14.3
Dec. 19			58.75			. .
28			58.72			13.6
Mean	1	27	58.76	+51	19	13.9

B. D. +45° 376

1900	h	m	s	°	′	″
Oct. 10	1	28	0.40	+45	27	47.7
Nov. 9			0.42			47.9
Dec. 13			0.50			46.9
1901						
Jan. 8			0.57			47.4
Mean	1	28	0.47	+45	27	47.5

B. D. +47° 450

1900	h	m	s	°	′	″
Oct. 6	1	28	5.52	+47	54	30.8
29			5.34			30.2
Nov. 27			5.45			31.2
1901						
Jan. 4			5.40			29.7
Mean	1	28	5.43	+47	54	30.5

B. D. +49° 414

1900	h	m	s	°	′	″
Sept. 23	1	28	19.76	+50	1	3.0
Oct. 20			19.66			2.7
Nov. 12			19.63			1.3
Dec. 5			19.66			2.8
26			19.66			2.4
Mean	1	28	19.67	+50	1	2.4

B. D. +48° 470

1900	h	m	s	°	′	″
Sept. 27	1	28	20.40	+49	3	2.3
Oct. 27			20.42			3.8
Dec. 14			20.36			4.1
1901						
Jan. 3			20.42			4.4
Mean	1	28	20.40	+49	3	3.6

B. D. +45° 379

1900	h	m	s	°	′	″
Sept. 19	1	28	33.43	+46	0	. .
Oct. 19			33.31			45.8
Nov. 22			33.08			47.5
1901						
Jan. 9			33.26			46.4
15			33.23			46.4
Mean	1	28	33.26	+46	0	46.5

B. D. +51° 334

1900	h	m	s	°	′	″
Sept. 18	1	28	33.91	+51	38	28.3
Oct. 16			33.77			29.5
Dec. 19			33.84			. .
21			33.85			29.6
Mean	1	28	33.84	+51	38	29.1

B. D. +44° 326

1900	h	m	s	°	′	″
Oct. 9	1	28	37.79	+45	4	58.2
Nov. 5			37.82			58.3
Dec. 12			37.82			57.7
1901						
Jan. 2			37.83			58.7
Mean	1	28	37.81	+45	4	58.2

B. D+45° 383

1900	h	m	s	°	′	″
Oct. 10	1	29	15.87	+45	19	1.2
Nov. 9			15.84			1.5
Dec. 13			15.92			0.1
1901						
Jan. 8			15.93			0.8
Mean	1	29	15.89	+45	19	0.9

B. D. +44° 329

1900	h	m	s	°	′	″
Sept. 27	1	29	20.32	+44	24	52.2
Oct. 27			20.46			51.9
Dec. 14			20.41			51.7
1901						
Jan. 4			20.43			51.6
Mean	1	29	20.40	+44	24	51.8

B. D. +51° 338

1900	h	m	s	°	′	″
Sept. 18	1	29	22.56	+51	39	8.1
Oct. 16			22.53			8.2
Nov. 21			22.62			8.6
Dec. 19			22.62			7.9
Mean	1	29	22.58	+51	39	8.2

B. D. +46° 389

1900	h	m	s	°	′	″
Oct. 11	1	29	30.62	+46	22	52.5
Nov. 12			30.47			51.2
1901						
Jan. 2			30.54			52.7
9			30.55			51.2
Mean	1	29	30.54	+46	22	51.9

B. D. +46° 393

1900	h	m	s	°	′	″
Oct. 11	1	29	59.39	+46	36	10.3
Nov. 12			59.27			12.1
Dec. 10			59.31			12.0
28			59.39			10.5
1901						
Jan. 18			59.08			11.9
Mean	1	29	59.29	+46	36	11.4

B. D. +48° 477

1900	h	m	s	°	′	″
Sept. 25	1	30	3.30	+48	41	35.7
Oct. 24			3.16			35.3
Nov. 30			3.11			35.7
1901						
Jan. 3			3.23			36.2
Mean	1	30	3.20	+48	41	35.7

B. D. +49° 416

1900	h	m	s	°	′	″
Sept. 23	1	30	5.82	+50	12	23.1
Oct. 20			5.72			24.4
Dec. 5			5.77			23.3
26			5.79			24.3
1901						
Jan. 15			5.76			23.5
16			5.74			23.0
Mean	1	30	5.77	+50	12	23.6

B. D. +46° 397

1900	h	m	s	°	′	″
Oct. 10	1	30	18.76	+46	48	53.3
Nov. 9			18.66			53.7
Dec. 28			18.79			53.7
1901						
Jan. 8			18.82			54.2
Mean	1	30	18.76	+46	48	53.7

B. D. +47° 460

1900	h	m	s	°	′	″
Sept. 27	1	30	20.35	+48	12	43.4
Oct. 27			20.26			43.9
Dec. 14			20.34			43.2
1901						
Jan. 4			20.35			42.9
Mean	1	30	20.32	+48	12	43.4

B. D. +51° 339

1900	h	m	s	°	′	″
Sept. 26	1	30	24.51	+51	14	16.7
Oct. 26			24.42			15.5
Dec. 11			24.39			16.0
21			24.42			16.3
Mean	1	30	24.44	+51	14	16.1

B. D. +47° 462

1900	h	m	s	°	′	″
Oct. 9	1	30	32.89	+47	33	45.2
Nov. 5			32.88			43.9
Dec. 12			33.01			45.4
1901						
Jan. 9			32.85			45.2
Mean	1	30	32.91	+47	33	44.9

B. D. +52° 387

1900	h	m	s	°	′	″
Sept. 16	1	30	39.60	+52	35	42.9
Oct. 15			39.32			43.1
Nov. 17			39.39			44.3
Dec. 19			39.54			42.5
Mean	1	30	39.46	+52	35	43.2

B. D. +47° 463

1900	h	m	s	°	′	″
Oct. 6	1	30	40.45	+47	48	16.8
29			40.30			17.1
Nov. 27			40.48			17.9
1901						
Jan. 2			40.44			17.6
Mean	1	30	40.42	+47	48	17.4

B. D. +50° 314

1900	h	m	s	°	′	″
Sept. 25	1	30	44.74	+50	45	0.2
Oct. 24			44.64		44	59.4
Nov. 30			44.60		45	0.6
Dec. 26			44.80		44	59.2
Mean	1	30	44.70	+50	44	59.8

B. D. +49° 418

1900	h	m	s	°	′	″
Sept. 24	1	30	56.28	+49	25	42.4
Oct. 21			56.29			43.1
Dec. 6			56.31			43.8
1901						
Jan. 9			56.35			42.8
16			56.41			43.5
Mean	1	30	56.33	+49	25	43.1

B. D. +51° 344

1900	h	m	s	°	′	″
Sept. 16	1	31	9.67	+52	7	15.1
Oct. 15			9.39			14.8
26			9.52			14.7
Nov. 17			9.52			16.0
Dec. 21			9.51			14.9
Mean	1	31	9.52	+52	7	15.1

B. D. +46° 404

1900	h	m	s	°	′	″
Oct. 11	1	31	12.94	+46	26	19.1
Nov. 12			12.97			17.9
Dec. 10			12.98			19.0
28			12.88			18.3
1901						
Jan. 18			12.79			19.4
Mean	1	31	12.91	+46	26	18.7

B. D. +45° 392

1900	h	m	s	°	′	″
Sept. 19	1	31	13.71	+45	56	57.1
Oct. 19			13.73			57.0
Nov. 9			13.79			57.5
22			13.78			57.2
1901						
Jan. 4			13.79			57.0
Mean	1	31	13.76	+45	56	57.2

B. D. +45° 394

1900	h	m	s	°	′	″
Oct. 9	1	31	25.10	+45	26	52.7
Nov. 5			25.20			52.6
Dec. 12			25.27			52.0
1901						
Jan. 8			25.17			51.8
Mean	1	31	25.18	+45	26	52.3

B. D. +49° 422

1900	h	m	s	°	′	″
Sept. 23	1	31	42.31	+50	5	48.1
Oct. 20			42.19			49.0
Dec. 5			42.29			47.7
26			42.28			49.0
Mean	1	31	42.27	+50	5	48.4

B. D. +44° 335

1900	h	m	s	°	′	″
Oct. 6	1	32	5.23	+44	18	31.1
29			5.08			30.7
Nov. 27			5.21			31.0
1901						
Jan. 9			5.25			30.6
15			5.07			30.9
Mean	1	32	5.17	+44	18	30.9

B. D. +44° 337

1900	h	m	s	°	′	″
Oct. 10	1	32	20.63	+45	9	18.2
Nov. 9			20.64			18.3
Dec. 13			20.58			17.4
1901						
Jan. 3			20.54			17.5
Mean	1	32	20.60	+45	9	17.8

B. D. +45° 398

1900	h	m	s	°	′	″
Sept. 19	1	32	22.30	+45	55	6.7
Oct. 19			22.36			7.8
Nov. 22			22.38			7.5
1901						
Jan. 4			22.37			7.2
Mean	1	32	22.35	+45	55	7.3

B. D. +44° 341

1900	h	m	s	°	′	″
Sept. 25	1	32	30.40	+44	53	26.1
Oct. 24			30.30			26.3
Nov. 30			30.39			26.8
1901						
Jan. 2			30.38			26.9
Mean	1	32	30.37	+44	53	26.5

B. D. +52° 393

1900	h	m	s	°	′	″
Sept. 18	1	32	31.82	+52	43	46.4
Oct. 16			31.71			47.1
Nov. 21			31.77			48.0
Dec. 19			31.90			46.3
Mean	1	32	31.80	+52	43	47.0

B. D. +43° 337

1900	h	m	s	°	′	″
Oct. 11	1	32	39.88	+43	38	8.3
Nov. 12			39.77			8.8
Dec. 12			39.87			9.6
14			39.71			8.7
1901						
Jan.. 8			39.83			9.2
Mean	1	32	39.81	+43	38	8.9

B. D. +53° 355

1900	h	m	s	°	′	″
Sept. 24	1	33	5.08	+53	37	36.5
Oct. 21			5.02			37.0
Dec. 6			5.04			37.1
28			5.10			38.2
Mean	1	33	5.06	+53	37	37.2

B. D. +43° 341

1900	h	m	s	°	′	″
Oct. 11	1	33	10.34	+43	31	33.8
Nov. 12			10.27			33.0
Dec. 10			10.27			35.2
1901						
Jan. 8			10.38			33.5
Mean	1	33	10.32	+43	31	33.9

B. D. +52° 399

1900	h	m	s	°	′	″
Sept. 23	1	33	13.54	+52	24	26.6
Oct. 20			13.42			27.4
Dec. 5			13.58			26.8
26			13.69			26.4
Mean	1	33	13.56	+52	24	26.8

B. D: +51° 357

1900	h	m	s	°	′	″
Sept. 18	1	33	13.80	+51	45	31.8
Oct. 16			13.68			32.6
Nov. 21			13.89			33.3
1901						
Jan. 3			13.71			32.2
Mean	1	33	13.77	+51	45	32.5

B. D. +43° 343

1900	h	m	s	°	′	″
Oct. 10	1	33	21.10	+43	52	39.2
Nov. 9			21.03			39.1
Dec. 13			21.07			39.1
1901						
Jan. 9			21.02			39.6
Mean	1	33	21.06	+43	52	39.2

B. D. +51° 360

1900	h	m	s	°	′	″
Sept. 16	1	33	34.52	+52	8	20.3
Oct. 15			34.27			21.7
Nov. 17			34.56			22.2
Dec. 21			34.48			21.5
Mean	1	33	34.46	+52	8	21.4

B. D. +41° 321

1900	h	m	s	°	′	″
Sept. 27	1	33	41.59	+42	13	51.8
Oct. 27			41.47			51.0
Dec. 14			41.43			50.8
1901						
Jan. 2			41.59			51.8
Mean	1	33	41.52	+42	13	51.4

B. D. +53° 363

1900	h	m	s	°	′	″
Sept. 24	1	33	51.50	+53	21	38.5
Oct. 21			51.42			38.7
Dec. 6			51.56			39.9
19			51.69			40.1
Mean	1	33	51.54	+53	21	39.3

B. D. +51° 363

1900	h	m	s	°	′	″
Sept. 26	1	34	2.62	+51	21	27.4
Oct. 26			2.71			27.5
Dec. 12			2.64			26.9
28			2.61			27.4
Mean	1	34	2.64	+51	21	27.3

B. D. +51° 364

1900	h	m	s	°	′	″
Sept. 16	1	34	10.48	+52	1	23.0
Oct. 15			10.38			21.3
Nov. 17			10.42			21.8
Dec. 21			10.39			21.5
Mean	1	34	10.42	+52	1	21.9

B. D. +44° 346

1900	h	m	s	°	′	″
Oct. 6	1	34	45.39	+44	16	29.2
29			45.31			29.4
Nov. 27			45.34			29.9
1901						
Jan. 8			45.27			29.4
Mean	1	34	45.33	+44	16	29.5

B. D. +44° 347

1900	h	m	s	°	′	″
Sept. 25	1	34	48.13	+44	30	48.0
Oct. 24			48.00			48.1
Nov. 30			47.99			49.4
1901						
Jan. 9			47.96			48.8
Mean	1	34	48.02	+44	30	48.6

B. D. +45° 416

1900	h	m	s	°	′	″
Sept. 19	1	35	22.78	+45	54	24.1
Oct. 19			22.83			23.7
Dec. 5			22.69			24.0
1901						
Jan. 4			22.55			24.1
Mean	1	35	22.71	+45	54	24.0

B. D. +52° 406

1900	h	m	s	°	′	″
Sept. 18	1	35	23.39	+52	52	13.6
Oct. 15			23.25			14.1
Nov. 17			23.31			16.4
Dec. 19			23.36			14.6
Mean	1	35	23.33	+52	52	14.7

B. D. +44° 352

1900	h	m	s	°	′	″
Oct. 10	1	35	50.90	+45	4	19.3
Nov. 9			50.86			15.7
Dec. 13			50.86			17.6
1901						
Jan. 2			50.92			18.8
Mean	1	35	50.88	+45	4	17.8

B. D. +42° 351

1900	h	m	s	°	′	″
Sept. 27	1	35	58.05	+42	21	32.4
Oct. 27			58.08			31.2
Dec. 14			57.96			32.7
1901						
Jan. 8			58.01			32.3
Mean	1	35	58.02	+42	21	32.2

B. D. +42° 352

1900	h	m	s	°	′	″
Sept. 25	1	36	3.75	+43	8	4.4
Oct. 24			3.76			4.5
Nov. 30			3.84			5.3
Dec. 28			3.67			4.4
Mean	1	36	3.76	+43	8	4.6

B. D. +42° 354

1900	h	m	s	°	′	″
Sept. 27	1	36	16.10	+42	30	56.2
Oct. 27			16.01			57.2
Dec. 14			15.96			57.6
1901						
Jan. 4			15.98			57.3
Mean	1	36	16.01	+42	30	57.1

B. D. +41° 329

1900	h	m	s	°	′	″
Oct. 11	1	36	16.83	+41	25	26.3
Nov. 12			16.74			25.6
Dec. 10			16.73			26.5
1901						
Jan. 9			16.61			. .
15			16.66			26.5
16			16.76			25.7
Mean	1	36	16.72	+41	25	26.1

B. D. +45° 422

1900	h	m	s	°	′	″
Oct. 9	1	36	23.95	+45	32	9.8
Nov. 5			24.09			10.1
Dec. 12			23.98			10.6
21			23.95			9.7
Mean	1	36	23.99	+45	32	10.0

B. D. +45° 424

1900	h	m	s	°	′	″
Oct. 9	1	37	4.32	+45	26	11.7
Nov. 5			4.45			11.2
Dec. 12			4.32			11.5
21			4.28			11.0
Mean	1	37	4.34	+45	26	11.4

B. D. +44° 354

1900	h	m	s	°	′	″
Oct. 10	1	37	11.32	+44	49	5.1
Nov. 9			11.22			5.5
Dec. 13			11.16			5.1
1901						
Jan. 2			11.14			5.4
Mean	1	37	11.21	+44	49	5.3

B. D. +52° 420

1900	h	m	s	°	′	″
Sept. 23	1	37	17.23	+52	22	54.9
Oct. 20			17.23			55.3
Dec. 5			17.27			54.6
26			17.27			53.2
Mean	1	37	17.25	+52	22	54.5

B. D. +42° 356

1900	h	m	s	°	′	″
Sept. 25	1	37	17.51	+43	12	1.0
Oct. 24			17.43			1.2
Nov. 30			17.43			2.6
Dec. 28			17.46			2.2
Mean	1	37	17.46	+43	12	1.8

B. D. +53° 375

1900	h	m	s	°	′	″
Sept. 24	1	37	25.59	+53	26	41.4
Oct. 21			25.67			41.6
Dec. 6			25.56			42.5
1901						
Jan. 3			25.47			41.2
Mean	1	37	25.57	+53	26	41.7

B. D. +54° 368

1900	h	m	s	°	′	″
Sept. 19	1	37	46.99	+54	23	0.6
Oct. 19			47.06		22	59.6
26			47.10			59.5
Nov. 22			46.90			59.9
1901						
Jan. 4			47.02			59.7
Mean	1	37	47.01	+54	22	59.9

B. D. +52° 424

1900	h	m	s	°	′	″
Sept. 16	1	37	58.69	+52	41	9.1
Oct. 15			58.56			8.5
Nov. 17			58.45			9.7
Dec. 26			58.60			8.3
Mean	1	37	58.58	+52	41	8.9

B. D. +42° 360

1900	h	m	s	°	′	″
Sept. 27	1	38	5.38	+42	44	13.5
Oct. 27			5.32			14.0
Dec. 14			5.39			14.3
1901						
Jan. 8			5.24			14.1
Mean	1	38	5.33	+42	44	14.0

B. D. +42° 361

1900	h	m	s	°	′	″
Sept. 25	1	38	13.72	+43	8	42.1
Oct. 24			13.67			42.1
Nov. 30			13.73			43.5
Dec. 28			13.42			42.2
Mean	1	38	13.64	+43	8	42.5

B. D. +52° 433

1900	h	m	s	°	′	″
Sept. 24	1	39	43.39	+53	6	22.6
Oct. 21			43.37			22.2
Dec. 6			43.45			23.1
19			43.41			21.9
Mean	1	39	43.40	+53	6	22.4

B. D. +43° 364

1900	h	m	s	°	′	″
Oct. 6	1	40	15.78	+44	8	45.4
29			15.70			45.5
Nov. 27			15.67			45.4
1901						
Jan. 2			15.66			45.6
Mean	1	40	15.70	+44	8	45.5

B. D. +42° 370

1900	h	m	s	°	′	″
Sept. 25	1	40	16.81	+43	12	16.4
Oct. 24			16.78			16.6
Nov. 30			16.76			17.9
Dec. 28			16.73			16.7
Mean	1	40	16.77	+43	12	16.9

B. D. +40° 364

1900	h	m	s	°	′	″
Oct. 9	1	40	37.17	+41	3	5.3
Nov. 5			37.23			5.5
Dec. 12			37.10			4.9
1901						
Jan. 9			37.15			. . . .
16			37.05			4.8
Mean	1	40	37.14	+41	3	5.1

B. D. +41° 342

1900	h	m	s	°	′	″
Oct. 11	1	41	11.43	+41	41	38.5
Nov. 12			11.35			37.5
Dec. 10			11.30			39.1
1901						
Jan. 4			11.21			38.7
Mean	1	41	11.32	+41	41	38.4

B. D. +53° 386

1900	h	m	s	°	′	″
Sept. 24	1	41	14.79	+53	30	16.4
Oct. 21			14.65			18.0
Dec. 6			14.91			17.8
1901						
Jan. 3			14.79			18.0
Mean	1	41	14.78	+53	30	17.6

B. D.+42° 373

1900	h m s	° ′ ″
Sept. 27	1 41 25.44	+42 34 50.6
Oct. 27	25.48	50.3
Dec. 14	25.29	51.4
1901		
Jan. 8	25.39	50.3
Mean	1 41 25.40	+42 34 50.6

B. D.+53° 388

1900	h m s	° ′ ″
Sept. 24	1 41 35.38	+53 23 27.2
Oct. 21	35.32	25.7
Dec. 6	35.26	24.8
1901		
Jan. 3	35.35	25.5
15	35.25	24.9
Mean	1 41 35.31	+53 23 25.6

B. D.+41° 347

1900	h m s	° ′ ″
Oct. 10	1 41 45.22	+41 55 . . . .
Nov. 9	45.22	24.5
Dec. 13	45.06	24.4
1901		
Jan. 2	45.13	24.6
Mean	1 41 45.16	+41 55 24.5

B. D.+52° 441

1900	h m s	° ′ ″
Sept. 16	1 41 53.29	+52 44 59.0
Oct. 15	53.08	59.3
Nov. 17	53.00	59.0
Dec. 26	53.07	58.2
Mean	1 41 53.11	+52 44 58.9

B. D.+42° 375

1900	h m s	° ′ ″
Sept. 27	1 41 55.76	+42 42 43.3
Oct. 27	55.79	43.6
Dec. 14	55.71	44.5
1901		
Jan. 8	55.75	44.6
Mean	1 41 55.75	+42 42 44.0

B. D.+54° 383

1900	h m s	° ′ ″
Sept. 18	1 42 39.85	+54 38 38.6
Oct. 16	39.72	38.7
Nov. 21	39.71	37.7
Dec. 19	39.69	37.5
Mean	1 42 39.74	+54 38 38.1

B. D.+41° 352

1900	h m s	° ′ ″
Sept. 27	1 42 55.65	+42 12 33.1
Oct. 27	55.43	34.5
Dec. 14	55.50	33.8
1901		
Jan. 2	55.52	34.3
Mean	1 42 55.52	+42 12 33.9

B. D.+53° 395

1900	h m s	° ′ ″
Sept. 24	1 43 11.14	+53 25 0.2
26	11.17	2.4
Oct. 21	11.00	1.6
Dec. 6	11.06	2.3
1901		
Jan. 3	11.07	1.4
Mean	1 43 11.09	+53 25 1.6

B. D.+43° 373

1900	h m s	° ′ ″
Sept. 25	1 43 11.36	+43 14 14.8
Oct. 24	11.29	15.3
Nov. 30	11.30	15.7
Dec. 28	11.06	14.8
1901		
Jan. 15	11.24	15.1
Mean	1 43 11.25	+43 14 15.1

B. D.+41° 353

1900	h m s	° ′ ″
Oct. 11	1 43 14.41	+41 29 28.8
Nov. 12	14.35	29.1
Dec. 10	14.28	29.3
1901		
Jan. 8	14.33	28.0
Mean	1 43 14.34	+41 29 28.8

B. D.+54° 388

1900	h m s	° ′ ″
Sept. 18	1 43 57.76	+54 43 13.8
Oct. 16	57.66	14.0
Nov. 21	57.85	14.6
Dec. 19	57.86	14.0
Mean	1 43 57.78	+54 43 14.1

B. D.+53° 398

1900	h m s	° ′ ″
Sept. 24	1 44 0.66	+53 14 45.2
Oct. 21	0.40	47.0
29	0.61	46.4
Dec. 6	0.75	46.3
1901		
Jan. 3	0.57	45.9
18	0.49	. . . .
22	0.43	44.7
Mean	1 44 0.56	+53 14 45.9

B. D.+54° 392

1900	h m s	° ′ ″
Sept. 26	1 44 42.17	+54 54 38.4
Oct. 26	42.27	37.4
Dec. 12	42.34	37.9
21	42.18	37.0
Mean	1 44 42.24	+54 54 37.7

B. D. +54° 393

1900	h m s	° ′ ″
Sept. 19	1 44 53.60	+54 25 44.1
Oct. 19	53.56	44.2
Nov. 22	53.48	45.0
Dec. 26	53.57	43.9
Mean	1 44 53.55	+54 25 44.3

B. D. +42° 388

1900	h m s	° ′ ″
Sept. 25	1 45 3.22	+43 1 46.4
Oct. 24	3.13	47.2
Nov. 30	3.14	47.0
1901		
Jan. 4	3.03	46.1
Mean	1 45 3.13	+43 1 46.7

B. D. +53° 402

1900	h m s	° ′ ″
Sept. 24	1 45 11.82	+53 22 19.4
26	11.77	19.8
Oct. 21	11.70	19.7
29	11.72	19.3
Dec. 6	11.75	19.8
1901		
Jan. 3	11.82	19.6
15	11.60	19.6
18	[11.39]	19.2
Mean	1 45 11.74	+53 22 19.6

B. D. +42° 390

1900	h m s	° ′ ″
Sept. 27	1 45 21.95	+42 16 6.0
Oct. 27	21.86	6.3
Dec. 14	21.80	6.8
1901		
Jan. 2	21.95	7.5
Mean	1 45 21.89	+42 16 6.6

B. D. +54° 396

1900	h m s	° ′ ″
Sept. 18	1 45 25.16	+54 39 8.9
Oct. 16	25.01	8.7
Nov. 21	25.17	8.0
Dec. 19	25.17	8.1
Mean	1 45 25.13	+54 39 8.4

B. D. +40° 384

1900	h m s	° ′ ″
Oct. 9	1 45 37.49	+40 57 33.3
Nov. 5	37.51	32.8
Dec. 13	37.35	32.8
1901		
Jan. 16	37.19	32.1
Mean	1 45 37.38	+40 57 32.8

B. D. +39° 421

1900	h m s	° ′ ″
Oct. 6	1 46 25.76	+40 3 11.4
29	25.49	11.5
Nov. 27	25.63	11.8
1901		
Jan. 4	25.52	11.1
Mean	1 46 25.60	+40 3 11.4

B. D. +41° 362

1900	h m s	° ′ ″
Oct. 11	1 46 43.30	+41 20 51.9
Nov. 12	43.20	52.2
Dec. 10	43.11	51.9
1901		
Jan. 8	43.14	52.0
Mean	1 46 43.19	+41 20 52.0

B. D. +40° 390

1900	h m s	° ′ ″
Oct. 9	1 46 49.14	+40 59 27.9
Nov. 5	49.18	28.7
Dec. 12	49.11	28.6
1901		
Jan. 16	49.01	27.2
Mean	1 46 49.11	+40 59 28.1

B. D. +41° 364

1900	h m s	° ′ ″
Sept. 27	1 47 10.10	+42 2 15.0
Oct. 27	10.18	15.9
Dec. 14	10.17	16.8
1901		
Jan. 2	10.15	16.6
Mean	1 47 10.15	+42 2 16.1

B. D. +54° 408

1900	h	m	s	°	′	″
Sept. 23	1	47	11.13	+55	6	16.1
Oct. 20			11.02			17.1
Dec. 5			11.06			16.9
19			11.07			17.6
Mean	1	47	11.07	+55	6	16.9

B. D. +40° 394

1900	h	m	s	°	′	″
Oct. 6	1	47	17.41	+40	14	11.0
29			17.30			10.5
Nov. 27			17.49			11.1
1901						
Jan. 4			17.37			11.5
Mean	1	47	17.39	+40	14	11.0

B. D. +53° 416

1900	h	m	s	°	′	″
Sept. 24	1	48	7.55	+53	23	58.7
25			7.60			58.4
Oct. 21			7.39			59.7
Dec. 6			7.45			58.9
1901						
Jan. 3			7.35			58.9
Mean	1	48	7.47	+53	23	58.9

B. D. +54° 413

1900	h	m	s	°	′	″
Sept. 19	1	48	13.26	+54	14	11.5
Oct. 19			13.27			11.4
Nov. 30			13.27			10.6
Dec. 26			13.30			9.4
Mean	1	48	13.28	+54	14	10.7

B. D. +53° 419

1900	h	m	s	°	′	″
Sept. 24	1	48	25.93	+53	41	49.5
Oct. 26			25.85			48.4
Dec. 19			25.89			49.9
21			25.80			48.9
Mean	1	48	25.87	+53	41	49.2

B. D. +40° 400

1900	h	m	s	°	′	″
Oct. 10	1	48	27.55	+40	23	52.0
Nov. 9			27.45			52.2
Dec. 13			27.45			52.3
1901						
Jan. 4			27.35			51.0
Mean	1	48	27.45	+40	23	51.9

B. D. +39° 431

1900	h	m	s	°	′	″
Sept. 27	1	48	37.52	+40	9	49.7
Oct. 27			37.55			50.2
Dec. 14			37.54			51.0
1901						
Jan. 8			37.51			51.1
Mean	1	48	37.53	+40	9	50.5

B. D. +40° 401

1900	h	m	s	°	′	″
Oct. 9	1	48	39.01	+41	8	58.5
Nov. 5			39.08			58.3
Dec. 12			39.14			58.9
1901						
Jan. 16			38.84			58.6
Mean	1	48	39.02	+41	8	58.6

B. D. +39° 434

1900	h	m	s	°	′	″
Oct. 6	1	48	52.73	+40	12	43.9
29			52.60			43.9
Nov. 27			52.76			43.8
1901						
Jan. 8			52.69			43.2
Mean	1	48	52.70	+40	12	43.7

B. D. +54° 415

1900	h	m	s	°	′	″
Sept. 23	1	49	8.60	+55	5	11.2
Oct. 20			8.41			11.9
Dec. 5			8.57			11.5
1901						
Jan. 2			8.40			11.4
15			8.43			10.4
Mean	1	49	8.48	+55	5	11.3

B. D. +55° 440

1900	h	m	s	°	′	″
Sept. 16	1	49	[14.06]	+55	20	13.7
Oct. 15			13.71			14.2
Nov. 17			13.80			14.4
1901						
Jan. 3			13.79			14.1
Mean	1	49	13.77	+55	20	14.1

B. D. +54° 417

1900	h	m	s	°	′	″
Sept. 23	1	49	32.33	+55	9	54.2
Oct. 20			32.31			55.5
Dec. 5			32.44			55.4
1901						
Jan. 18			[31.91]			55.1
Mean	1	49	32.36	+55	9	55.0

B. D. +41° 374

1900	h	m	s	°	′	″
Oct. 11	1	50	28.55	+41	24	8.3
Nov. 12			28.40			8.2
Dec. 10			28.34			8.9
1901						
Jan. 2			28.48			9.7
Mean	1	50	28.44	+41	24	8.8

B. D. +41° 377

1900	h	m	s	°	′	″
Oct. 11	1	51	9.64	+41	16	37.8
Nov. 12			9.58			38.0
Dec. 10			9.65			39.0
1901						
Jan. 18			9.30			37.7
Mean	1	51	9.54	+41	16	38.1

B. D. +54° 424

1900	h	m	s	°	′	″
Sept. 18	1	51	13.04	+54	52	52.1
Oct. 16			12.98			53.2
Nov. 21			12.88			52.8
Dec. 21			12.99			53.1
Mean	1	51	12.97	+54	52	52.8

B. D. +40° 406

1900	h	m	s	°	′	″
Oct. 10	1	51	14.05	+40	16	19.5
Nov. 9			13.88			19.5
Dec. 13			13.96			19.5
1901						
Jan. 8			13.79			18.9
Mean	1	51	13.92	+40	16	19.4

B. D. +53° 428

1900	h	m	s	°	′	″
Sept. 26	1	51	36.47	+54	7	12.6
Oct. 26			36.57			11.5
Dec. 12			36.50			12.5
26			36.66			11.2
Mean	1	51	36.55	+54	7	12.0

B. D. +54° 429

1900	h	m	s	°	′	″
Sept. 23	1	52	10.26	+55	5	40.7
Oct. 20			10.17			41.3
Dec. 5			10.30			40.8
1901						
Jan. 3			10.18			39.3
Mean	1	52	10.23	+55	5	40.5

B. D. +40° 412

1900	h	m	s	°	′	″
Oct. 10	1	52	20.80	+40	25	34.6
Nov. 9			20.69			34.9
Dec. 13			20.75			34.7
1901						
Jan. 4			20.60			34.1
Mean	1	52	20.71	+40	25	34.6

B. D. +39° 447

1900	h	m	s	°	′	″
Oct. 6	1	52	22.39	+40	3	4.4
29			22.27			3.8
Nov. 27			22.28			4.0
1901						
Jan. 8			22.27			3.2
Mean	1	52	22.30	+40	3	3.8

B. D. +55° 464

1900	h	m	s	°	′	″
Sept. 16	1	52	50.93	+55	17	57.0
Oct. 15			50.93			56.0
Nov. 17			50.85			56.9
Dec. 21			50.97			56.0
Mean	1	52	50.92	+55	17	56.5

B. D. +54° 431

1900	h	m	s	°	′	″
Sept. 19	1	52	56.31	+54	20	10.2
Oct. 19			56.36			10.0
Nov. 30			56.27			8.7
Dec. 26			56.57			8.5
Mean	1	52	56.38	+54	20	9.4

B. D. +39° 448

1900	h	m	s	°	′	″
Oct. 6	1	53	36.39	+40	4	42.7
29			36.26			42.6
Nov. 27			36.36			42.9
1901						
Jan. 8			36.20			42.5
Mean	1	53	36.30	+40	4	42.7

B. D. +40° 415

1900	h	m	s	°	′	″
Oct. 11	1	53	39.31	+40	51	50.9
Nov. 12			39.23			51.0
Dec. 10			39.21			52.7
1901						
Jan. 18			39.03			51.7
Mean	1	53	39.20	+40	51	51.6

B. D. +37° 452

1900	h m s	° ′ ″
Oct. 10	1 54 18.59	+38 6 44.6
Nov. 9	18.50	45.4
Dec. 13	18.61	45.0
1901		
Jan. 4	18.49	44.2
Mean	1 54 18.55	+38 6 44.8

B. D. +39° 450

1900	h m s	° ′ ″
Oct. 9	1 54 28.82	+39 28 55.7
Nov. 5	28.78	55.8
Dec. 12	28.73	56.0
1901		
Jan. 3	28.78	55.5
Mean	1 54 28.78	+39 28 55.8

B. D. +40° 421

1900	h m s	° ′ ″
Oct. 11	1 54 41.38	+40 52 34.2
Nov. 12	41.22	34.6
Dec. 10	41.28	35.8
1901		
Jan. 15	41.28	35.1
Mean	1 54 41.29	+40 52 34.9

B. D. +38° 392

1900	h m s	° ′ ″
Oct. 19	1 54 46.77	+39 8 29.0
27	46.88	28.7
Dec. 14	46.83	30.2
1901		
Jan. 2	46.84	31.3
Mean	1 54 46.83	+39 8 29.8

B. D. +38° 391

1900	h m s	° ′ ″
Sept. 27	1 54 48.41	+39 7 20.4
Oct. 27	48.52	21.1
Dec. 14	48.51	21.7
1901		
Jan. 2	48.52	22.8
Mean	1 54 48.49	+39 7 21.5

B. D. +40° 423

1900	h m s	° ′ ″
Sept. 25	1 55 9.18	+40 43 39.8
Oct. 24	9.11	40.0
Nov. 30	9.08	40.0
1901		
Jan. 18	8.89	39.4
Mean	1 55 9.06	+40 43 39.8

B. D. +53° 437

1900	h m s	° ′ ″
Sept. 24	1 55 22.72	+53 32 0.9
Oct. 21	22.64	0.7
Dec. 6	22.71	1.7
28	22.59	0.6
1901		
Jan. 15	22.77	1.2
Mean	1 55 22.69	+53 32 1.0

B. D. +53° 439

1900	h m s	° ′ ″
Sept. 26	1 55 38.45	+54 0 16.2
Oct. 26	38.34	15.2
Dec. 12	38.39	15.2
21	38.36	15.0
Mean	1 55 38.38	+54 0 15.4

B. D. +39° 454

1900	h m s	° ′ ″
Oct. 6	1 55 45.33	+40 11 3.5
29	45.17	2.6
Nov. 27	45.19	2.6
1901		
Jan. 3	45.12	2.6
Mean	1 55 45.20	+40 11 2.8

B. D. +54° 444

1900	h m s	° ′ ″
Sept. 18	1 56 26.97	+54 44 59.3
Oct. 16	26.82	59.8
Nov. 21	27.01	45 0.2
Dec. 19	26.91	0.9
Mean	1 56 26.93	+54 45 0.0

B. D. +37° 465

1900	h m s	° ′ ″
Oct. 10	1 56 38.21	+38 3 42.5
Nov. 9	38.14	42.0
Dec. 13	38.17	42.0
1901		
Jan. 4	38.21	42.1
Mean	1 56 38.18	+38 3 42.2

B. D. +53° 440

1900	h m s	° ′ ″
Sept. 19	1 56 44.93	+54 12 43.1
Oct. 19	45.02	42.8
Nov. 22	44.91	43.1
Dec. 26	45.11	42.2
Mean	1 56 44.99	+54 12 42.8

B. D. +55° 484

1900	h m s	° ′ ″
Sept. 16	1 57 4.19	+55 17 13.8
Oct. 15	4.14	13.6
Dec. 5	4.11	12.0
21	4.09	12.0
1901		
Jan. 15	4.03	12.5
Mean	1 57 4.11	+55 17 12.8

B. D. +37° 468

1900	h m s	° ′ ″
Oct. 10	1 57 6.31	+38 9 52.9
Nov. 11	6.29	52.6
Dec. 13	6.32	53.0
1901		
Jan. 4	6.31	53.5
Mean	1 57 6.31	+38 9 53.0

B. D. +54° 448

1900	h m s	° ′ ″
Sept. 18	1 57 6.41	+54 38 21.8
Oct. 16	6.34	20.7
Nov. 21	6.49	21.2
Dec. 28	6.39	21.3
Mean	1 57 6.41	+54 38 21.2

B. D. +39° 457

1900	h m s	° ′ ″
Oct. 9	1 57 45.27	+39 34 30.0
Nov. 5	45.29	30.3
Dec. 12	45.26	31.4
1901		
Jan. 16	45.19	30.2
Mean	1 57 45.25	+39 34 30.5

B. D. +54° 452

1900	h m s	° ′ ″
Sept. 19	1 57 57.93	+54 16 33.4
Oct. 19	58.01	32.3
Nov. 22	58.07	34.7
Dec. 26	58.05	32.6
Mean	1 57 58.02	+54 16 33.2

B. D. +54° 453

1900	h m s	° ′ ″
Sept. 23	1 58 18.04	+55 8 35.4
Oct. 20	17.93	36.6
Dec. 5	17.96	36.1
21	17.97	35.5
Mean	1 58 17.98	+55 8 35.9

B. D. +38° 402

1900	h m s	° ′ ″
Oct. 9	1 58 43.38	+38 57 18.3
Nov. 5	43.41	18.0
Dec. 12	43.42	19.3
1901		
Jan. 8	43.36	18.2
Mean	1 58 43.39	+38 57 18.4

B. D. +54° 457

1900	h m s	° ′ ″
Sept. 19	1 59 8.45	+54 26 55.4
Oct. 19	8.44	. .
Nov. 22	8.47	56.2
Dec. 28	8.34	55.5
Mean	1 59 8.42	+54 26 55.7

B. D. +39° 464

1900	h m s	° ′ ″
Oct. 11	1 59 43.30	+39 16 51.4
Nov. 12	43.34	52.1
Dec. 10	43.29	52.5
1901		
Jan. 2	43.21	54.6
Mean	1 59 43.28	+39 16 52.6

B. D. +53° 451

1900	h m s	° ′ ″
Sept. 26	2 0 3.09	+53 49 49.0
Oct. 26	3.13	48.4
Dec. 12	3.10	49.0
1901		
Jan. 3	3.08	49.0
Mean	2 0 3.10	+53 49 48.8

B. D. +38° 408

1900	h m s	° ′ ″
Oct. 11	2 0 22.70	+38 25 18.8
Nov. 12	22.73	18.1
Dec. 10	22.55	18.2
1901		
Jan. 16	22.56	18.7
Mean	2 0 22.64	+38 25 18.4

B. D. +39° 468

1900	h m s	° ′ ″
Oct. 6	2 0 30.37	+40 7 15.3
29	30.34	15.4
Nov. 27	30.36	15.2
1901		
Jan. 1	30.34	16.2
Mean	2 0 30.35	+40 7 15.5

B. D. +53° 453

1900	h	m	s	°	′	″
Sept. 19	2	1	36.51	+54	7	38.0
Oct. 19			36.57			38.3
Nov. 22			36.60			38.4
Dec. 21			36.48			37.0
Mean	2	1	36.54	+54	7	37.9

B. D. +37° 486

1900	h	m	s	°	′	″
Oct. 11	2	2	27.13	+37	23	5.4
Nov. 12			27.06			5.0
Dec. 10			27.08			5.6
1901						
Jan. 1			27.09			4.5
Mean	2	2	27.09	+37	23	5.1

B. D. +55° 527

1900	h	m	s	°	′	″
Sept. 16	2	2	[48.52]	+55	22	44.4
Oct. 15			48.16			46.6
Dec. 5			48.27			44.9
21			48.21			45.9
Mean	2	2	48.21	+55	22	45.4

B. D. +38° 416

1900	h	m	s	°	′	″
Oct. 9	2	2	49.09	+38	52	24.8
Nov. 5			49.16			25.4
Dec. 12			49.13			26.1
1901						
Jan. 8			49.03			25.7
Mean	2	2	49.10	+38	52	25.5

B. D. +37° 488

1900	h	m	s	°	′	″
Oct. 10	2	2	54.54	+38	3	. .
Nov. 4			54.53			19.4
9			54.46			19.5
Dec. 13			54.39			20.0
1901						
Jan. 16			54.49			19.8
Mean	2	2	54.48	+38	3	19.7

B. D. +54° 469

1900	h	m	s	°	′	″
Sept. 23	2	3	9.38	+55	0	47.9
Oct. 20			9.24			49.2
Dec. 5			9.22			47.3
19			9.21			48.9
Mean	2	3	9.26	+55	0	48.3

B. D. +53° 459

1900	h	m	s	°	′	″
Sept. 26	2	3	20.99	+53	51	27.5
Oct. 26			21.07			27.8
Dec. 12			20.90			28.2
1901						
Jan. 3			20.81			27.0
Mean	2	3	20.94	+53	51	27.6

B. D. +53° 460

1900	h	m	s	°	′	″
Sept. 25	2	3	24.92	+53	22	14.5
Oct. 24			24.98			14.4
Nov. 30			24.90			14.9
1901						
Jan. 4			24.88			15.0
Mean	2	3	24.92	+53	22	14.7

B. D. +54° 470

1900	h	m	s	°	′	″
Sept. 18	2	3	28.00	+54	49	6.2
Oct. 16			27.96			7.2
Nov. 21			27.90			7.0
Dec. 26			27.81			5.9
Mean	2	3	27.92	+54	49	6.6

B. D. +53° 470

1900	h	m	s	°	′	″
Sept. 19	2	4	59.80	+54	4	47.6
Oct. 19			59.70			46.7
Nov. 27			59.73			. .
30			59.58			47.1
Dec. 19			59.74			46.9
Mean	2	4	59.71	+54	4	47.1

B. D. +54° 483

1900	h	m	s	°	′	″
Sept. 23	2	6	11.47	+54	38	27.6
Oct. 20			11.50			28.2
Dec. 5			11.52			27.4
26			11.52			25.9
Mean	2	6	11.50	+54	38	27.3

B. D. +53° 474

1900	h	m	s	°	′	″
Sept. 26	2	6	26.25	+53	44	57.5
Oct. 26			26.17			57.0
Dec. 12			26.15			57.5
1901						
Jan. 3			26.11			56.9
Mean	2	6	26.17	+53	44	57.2

B. D. +54° 494

1900	h	m	s	°	′	″
Sept. 18	2	7	42.14	+54	50	55.8
Oct. 16			42.14			56.5
Nov. 21			42.11			56.6
1901						
Jan. 1			42.38			57.0
Mean	2	7	42.19	+54	50	56.5

B. D. +53° 485

1900	h	m	s	°	′	″
Sept. 24	2	7	58.46	+53	34	28.3
Oct. 21			58.26			27.6
Dec. 6			58.35			28.5
1901						
Jan. 3			58.34			28.5
Mean	2	7	58.35	+53	34	28.2

B. D. +53° 486

1900	h	m	s	°	′	″
Sept. 19	2	8	4.93	+54	3	51.8
Oct. 19			4.96			51.6
Nov. 22			4.83			51.3
Dec. 19			5.03			51.6
Mean	2	8	4.94	+54	3	51.6

B. D. +55° 551

1900	h	m	s	°	′	″
Sept. 16	2	8	6.41	+55	16	48.7
Oct. 15			6.32			47.9
Dec. 10			6.32			47.7
21			6.46			47.6
Mean	2	8	6.38	+55	16	48.0

B. D. +54° 497

1900	h	m	s	°	′	″
Sept. 23	2	8	17.20	+54	37	13.6
Oct. 20			17 23			14.7
Dec. 5			17.27			13.9
26			17.21			12.5
Mean	2	8	17.23	+54	37	13.7

B. D. +52° 549

1900	h	m	s	°	′	″
Sept. 25	2	8	28.16	+53	6	39.4
Oct. 24			28.14			39.5
Nov. 30			28.04			39.4
1901						
Jan. 4			28.01			39.5
Mean	2	8	28.09	+53	6	39.4

B. D. +54° 500

1900	h	m	s	°	′	″
Sept. 16	2	8	34.38	+55	7	42.1
Oct. 15			34.36			42.8
Dec. 10			34.49			42.3
21			34.45			41.4
Mean	2	8	34.42	+55	7	42.2

B. D. +53° 494

1900	h	m	s	°	′	″
Sept. 19	2	11	7.05	+54	0	3.0
Oct. 19			7.00			3.4
Nov. 22			6.95			3.0
Dec. 21			6.90			2.3
Mean	2	11	6.98	+54	0	2.9

B. D. +53° 497

1900	h	m	s	°	′	″
Sept. 26	2	11	34.99	+53	48	59.8
Oct. 26			34.94		48	59.6
Dec. 12			34.81		49	0.6
26			34.95		48	59.8
Mean	2	11	34.92	+53	49	0.0

B. D. +54° 511

1900	h	m	s	°	′	″
Sept. 16	2	11	35.83	+55	4	40.5
Oct. 15			35.74			40.8
Dec. 5			35.75			41.8
19			35.80			41.3
Mean	2	11	35.78	+55	4	41.1

B. D. +52° 563

1900	h	m	s	°	′	″
Sept. 25	2	12	6.14	+53	6	50.2
Oct. 24			6.12			51.4
Nov. 30			6.00			51.5
Dec. 21			6.12			50.8
Mean	2	12	6.10	+53	6	51.0

B. D. +53° 501

1900	h	m	s	°	′	″
Sept. 24	2	12	6.55	+53	38	1.4
Oct. 21			6.49			1.2
Dec. 6			6.36		38	0.8
26			6.62		37	59.9
Mean	2	12	6.50	+53	38	0.8

B. D. +54° 525

1900	h	m	s	°	′	″
Sept. 18	2	14	4.08	+54	56	54.4
Oct. 16			4.06			55.2
Nov. 21			4.14			56.0
Dec. 19			4.05			55.2
Mean	2	14	4.08	+54	56	55.2

B. D. +53° 507

1900	h	m	s	°	′	″
Sept. 19	2	14	20.20	+54	3	3.7
Oct. 19			20.17			4.5
Nov. 22			20.22			3.6
Dec. 21			20.14			3.6
Mean	2	14	20.18	+54	3	3.8

B. D. +53° 513

1900	h	m	s	°	′	″
Sept. 26	2	14	54.61	+53	47	27.0
Oct. 26			54.64			26.6
Dec. 12			54.61			27.5
26			54.65			25.7
Mean	2	14	54.63	+53	47	26.7

B. D. +54° 530

1900	h	m	s	°	′	″
Sept. 23	2	15	44.14	+54	37	20.2
Oct. 20			44.14			22.7
Dec. 5			44.15			21.9
21			44.25			21.7
Mean	2	15	44.17	+54	37	21.6

B. D. +54° 555

1900	h	m	s	°	′	″
Sept. 18	2	16	54.37	+54	54	34.4
Oct. 16			54.23			33.6
Nov. 21			54.27			34.4
Dec. 19			54.35			33.7
Mean	2	16	54.30	+54	54	34.0

B. D. +53° 519

1900	h	m	s	°	′	″
Sept. 26	2	17	20.22	+53	44	10.2
Oct. 26			20.28			10.6
Dec. 12			20.18			10.2
26			20.21			8.3
Mean	2	17	20.22	+53	44	9.8

B. D. +53° 521

1900	h	m	s	°	′	″
Sept. 27	2	17	28.78	+53	19	11.0
Oct. 27			28.91			11.5
Dec. 14			28.79			11.3
21			28.94			11.2
Mean	2	17	28.86	+53	19	11.2

B. D. +52° 576

1900	h	m	s	°	′	″
Sept. 16	2	17	35.51	+52	59	36.3
Oct. 15			35.39			35.9
Dec. 5			35.42			36.6
19			35.45			37.0
Mean	2	17	35.44	+52	59	36.4

B. D. +54° 539

1900	h	m	s	°	′	″
Sept. 18	2	18	15.12	+54	48	4.5
Oct. 16			15.13			3.6
Nov. 21			15.18			4.4
Dec. 26			15.22			3.3
Mean	2	18	15.16	+54	48	4.0

B. D. +52° 580

1900	h	m	s	°	′	″
Sept. 16	2	19	3.18	+52	55	1.7
Oct. 15			3.19			1.8
Dec. 5			3.27			1.7
19			3.26			2.0
Mean	2	19	3.22	+52	55	1.8

B. D. +53° 525

1900	h	m	s	°	′	″
Sept. 24	2	19	30.37	+53	40	27.3
Oct. 21			30.35			27.2
Dec. 6			30.20			26.9
21			30.33			26.5
Mean	2	19	30.31	+53	40	27.0

B. D. +52° 581

1900	h	m	s	°	′	″
Sept. 16	2	20	30.58	+53	2	58.6
Oct. 15			30.54			59.4
Dec. 5			30.67			59.0
19			30.62			59.3
Mean	2	20	30.60	+53	2	59.1

B. D. +54° 554

1900	h	m	s	°	′	″
Sept. 23	2	21	. . .	+54	31	35.9
24			46.84			35.7
Oct. 20			46.80			35.5
Dec. 5			46.82			35.4
26			46.75			35.8
Mean	2	21	46.80	+54	31	35.7

B. D. +52° 585

1900	h	m	s	°	′	″
Sept. 18	2	21	54.91	+53	5	35.8
Oct. 15			54.87			37.1
Dec. 6			54.81			36.7
19			54.89			36.9
Mean	2	21	54.87	+53	5	36.6

B. D. +52° 587

1900	h	m	s	°	′	″
Sept. 27	2	22	52.48	+52	36	53.0
Oct. 29			52.59			52.9
Dec. 14			52.46			51.9
21			52.51			52.8
Mean	2	22	52.51	+52	36	52.6

B. D. +53° 532

1900	h	m	s	°	′	″
Sept. 18	2	23	5.40	+53	24	22.0
Oct. 16			5.31			20.7
Dec. 5			5.44			20.5
26			5.32			18.9
Mean	2	23	5.37	+53	24	20.5

B. D. +54° 565

1900	h	m	s	°	′	″
Sept. 23	2	24	. . . . .	+54	27	4.7
24			32.73			4.3
Oct. 20			32.70			5.0
Dec. 5			32.82			4.1
19			32.79			3.8
Mean	2	24	32.76	+54	27	4.4

B. D. +51° 587

1900	h	m	s	°	′	″
Sept. 27	2	24	57.54	+51	51	46.3
Nov. 9			57.63			44.7
Dec. 14			57.62			47.2
26			57.62			46.3
Mean	2	24	57.60	+51	51	46.1

B. D. +52° 592

1900	h	m	s	°	′	″
Sept. 25	2	25	3.16	+52	23	28.1
Oct. 24			3.23			28.6
Nov. 30			3.10			28.9
Dec. 21			3.24			27.0
Mean	2	25	3.18	+52	23	28.2

B. D. +53° 539

1900	h	m	s	°	′	″
Sept. 26	2	25	30.07	+53	51	59.9
Oct. 29			29.99		52	0.1
Dec. 12			30.18			0.3
19			30.21			1.0
Mean	2	25	30.11	+53	52	0.3

B. D. +53° 540

1900	h	m	s	°	′	″
Sept. 18	2	25	49.37	+53	32	5.8
Oct. 16			49.24			5.2
Dec. 5			49.37			6.4
21			49.38			6.0
Mean	2	25	49.34	+53	32	5.8

B. D. +53° 541

1900	h	m	s	°	′	″
Sept. 19	2	25	55.86	+54	6	7.5
Oct. 19			55.83			8.7
Nov. 22			55.91			8.0
Dec. 26			55.94			8.5
Mean	2	25	55.88	+54	6	8.2

B. D. +52° 595

1900	h	m	s	°	′	″
Sept. 25	2	27	16.91	+52	23	25.6
Oct. 24			16.86			26.7
Nov. 30			16.81			26.4
Dec. 21			16.86			25.6
Mean	2	27	16.86	+52	23	26.1

B. D. +52° 597

1900	h	m	s	°	′	″
Sept. 16	2	27	23.21	+52	57	52.6
Oct. 15			23.13			54.5
Dec. 5			23.09			54.0
19			23.07			54.2
Mean	2	27	23.12	+52	57	53.8

B. D. +51° 594

1900	h	m	s	°	′	″
Sept. 27	2	27	39.60	+51	31	56.7
Oct. 27			39.75			57.9
Dec. 14			39.74			57.1
26			39.82			57.0
Mean	2	27	39.73	+51	31	57.2

B. D. +50° 587

1900	h	m	s	°	′	″
Oct. 6	2	28	23.88	+50	45	2.5
29			23.92			2.1
Nov. 27			23.76			2.4
Dec. 26			23.96			2.2
Mean	2	28	23.88	+50	45	2.3

B. D. +53° 546

1900	h	m	s	°	′	″
Sept. 18	2	28	31.97	+53	14	56.7
Oct. 16			31.96			57.5
Dec. 5			31.94			57.6
21			31.90			56.3
Mean	2	28	31.94	+53	14	57.0

B. D. +53° 547

1900	h	m	s	°	′	″
Sept. 26	2	28	34.72	+53	52	42.6
Oct. 26			34.77			42.2
Dec. 12			34.67			42.9
19			34.82			42.9
Mean	2	28	34.74	+53	52	42.6

B. D. +51° 598

1900	h	m	s	°	′	″
Sept. 19	2	29	15.68	+52	2	59.5
Oct. 19			15.64			59.2
Nov. 22			15.57			59.0
Dec. 21			15.72			59.5
Mean	2	29	15.65	+52	2	59.3

B. D. +51° 599

1900	h	m	s	°	′	″
Sept. 27	2	29	55.70	+51	31	28.3
Oct. 27			55.85			27.8
Dec. 14			55.79			29.2
26			55.85			28.0
Mean	2	29	55.80	+51	31	28.3

B. D. +52° 602

1900	h	m	s	°	′	″
Sept. 25	2	30	52.55	+52	22	39.4
Oct. 24			52.46			42.0
26			52.49			39.1
Nov. 30			52.47			39.6
Dec. 19			52.65			39.6
Mean	2	30	52.52	+52	22	39.9

B. D. +50° 589

1900	h	m	s	°	′	″
Sept. 23	2	31	23.10	+50	26	1.2
Oct. 20			23.23			2.1
Dec. 5			23.12			1.4
26			23.12			0.9
Mean	2	31	23.14	+50	26	1.4

B. D. +51° 604

1900	h	m	s	°	′	″
Sept. 27	2	31	37.41	+51	38	36.1
Oct. 27			37.48			36.4
Dec. 14			37.41			38.1
19			37.54			38.1
Mean	2	31	37.46	+51	38	37.2

B. D. +37° 589

1900	h	m	s	°	′	″
Oct. 10	2	32	10.11	+37	31	10.5
Nov. 5			10.02			8.9
Dec. 12			10.02			9.9
1901						
Jan. 2			10.07			10.3
Mean	2	32	10.06	+37	31	9.9

B. D. +50° 595

1900	h	m	s	°	′	″
Sept. 23	2	32	24.94	+50	21	3.4
Oct. 20			25.01			3.6
Dec. 5			25.08			3.4
26			25.04			4.5
Mean	2	32	25.02	+50	21	3.7

B. D. +49° 733

1900	h	m	s	°	′	″
Oct. 6	2	32	49.23	+50	5	12.7
29			49.21			12.8
Nov. 27			49.24			13.9
Dec. 21			49.22			12.8
Mean	2	32	49.22	+50	5	13.0

B. D. +52° 609

1900	h	m	s	°	′	″
Sept. 25	2	33	23.89	+52	22	22.8
Oct. 24			23.97			23.7
Nov. 30			23.84			23.9
Dec. 19			24.00			23.8
Mean	2	33	23.92	+52	22	23.6

B. D. +50° 599

1900	h	m	s	°	′	″
Oct. 15	2	33	34.35	+51	11	38.7
16			34.35			39.3
Dec. 10			34.23			39.1
1901						
Jan. 7			34.41			38.7
Mean	2	33	34.34	+51	11	39.0

B. D. +50° 601

1900	h	m	s	°	′	″
Sept. 16	2	33	42.83	+51	11	34.5
Oct. 15			42.71			34.3
Dec. 10			42.62			35.4
1901						
Jan. 7			42.78			33.7
Mean	2	33	42.74	+51	11	34.5

B. D. +40° 567

1900	h	m	s	°	′	″
Sept. 24	2	34	12.44	+40	53	9.6
Oct. 21			12.26			9.0
Nov. 11			12.33			10.3
Dec. 6			12.37			8.4
28			12.20			9.1
Mean	2	34	12.32	+40	53	9.3

B. D. +49° 741

1900	h	m	s	°	′	″
Sept. 26	2	34	18.18	+49	34	56.4
Oct. 26			18.30			54.9
Dec. 20			18.44			56.3
1901						
Jan. 3			18.21			56.0
Mean	2	34	18.28	+49	34	55.9

B. D. +49° 743

1900	h	m	s	°	′	″
Sept. 26	2	34	25.06	+49	41	21.5
Oct. 26			24.96			20.8
Dec. 20			25.09			20.3
1901						
Jan. 4			25.07			21.0
Mean	2	34	25.04	+49	41	20.9

B. D. +37° 596

1900	h	m	s	°	′	″
Oct. 9	2	34	54.35	+37	48	. . . .
Nov. 5			54.26			14.3
Dec. 12			. . . . .			16.1
13			54.22			14.5
27			54.39			15.4
1901						
Jan. 2			54.30			15.6
Mean	2	34	54.30	+37	48	15.2

B. D. +51° 616

1900	h	m	s	°	′	″
Sept. 19	2	35	21.69	+52	0	20.2
Oct. 20			21.68			21.1
Nov. 22			21.58			20.8
1901						
Jan. 15			21.69			21.2
Mean	2	35	21.66	+52	0	20.8

B. D. +39° 609

1900	h	m	s	°	′	″
Oct. 11	2	35	37.93	+40	4	41.7
Nov. 12			37.87			41.7
Dec. 10			37.89			42.6
1901						
Jan. 8			37.93			41.0
Mean	2	35	37.90	+40	4	41.8

B. D. +40° 570

1900	h	m	s	°	′	″
Sept. 24	2	35	38.45	+40	57	57.6
Oct. 21			38.39			58.4
Nov. 11			38.33			57.3
Dec. 6			38.41			58.7
28			38.41			58.2
Mean	2	35	38.40	+40	57	58.0

B. D. +51° 618

1900	h	m	s	°	′	″
Sept. 27	2	35	38.82	+51	28	31.4
Oct. 27			38.90			30.7
Dec. 14			38.77			31.5
1901						
Jan. 4			38.75			31.4
Mean	2	35	38.81	+51	28	31.2

B. D. +41° 517

1900	h	m	s	°	′	″
Oct. 9	2	35	47.45	+41	44	52.9
Nov. 5			47.33			52.5
Dec. 12			47.44			51.7
27			47.40			52.2
1901						
Jan. 1			47.46			52.3
Mean	2	35	47.42	+41	44	52.3

B. D. +52° 616

1900	h	m	s	°	′	″
Sept. 18	2	35	56.77	+53	5	59.8
Oct. 16			56.57			58.0
Dec. 5			56.74			58.9
1901						
Jan. 18			56.73			58.7
Mean	2	35	56.70	+53	5	58.8

B. D. +39° 613

1900	h	m	s	°	′	″
Oct. 10	2	36	14.16	+39	21	55.9
Nov. 9			14.19			55.4
1901						
Jan. 2			14.17			53.8
16			14.29			55.6
Mean	2	36	14.20	+39	21	55.2

B. D. +52° 617

1900	h	m	s	°	′	″
Sept. 25	2	36	19.69	+52	19	46.9
Oct. 24			19.82			48.8
Nov. 30			19.71			48.6
Dec. 19			19.76			48.1
Mean	2	36	19.74	+52	19	48.1

B. D. +42° 610

1900	h	m	s	°	′	″
Sept. 26	2	36	34.80	+42	35	5.5
Oct. 26			34.77			5.4
Dec. 20			34.85			5.4
1901						
Jan. 3			34.66			5.5
Mean	2	36	34.77	+42	35	5.4

B. D. +51° 620

1900	h	m	s	°	′	″
Sept. 19	2	36	38.32	+51	59	15.9
Oct. 19			38.16			16.9
27			38.18			17.5
1901						
Jan. 4			38.34			17.1
15			38.15			17.4
16			38.27			17.1
18			38.24			16.7
Mean	2	36	38.24	+51	59	16.9

B. D. +50° 613

1900	h	m	s	°	′	″
Sept. 18	2	36	40.21	+51	6	28.1
Oct. 15			40.15			30.4
1901						
Jan. 7			40.15			29.1
29			40.33			28.9
Mean	2	36	40.21	+51	6	29.1

B. D. +49° 752

1900	h	m	s	°	′	″
Oct. 6	2	36	45.99	+49	57	34.1
29			46.00			33.4
Dec. 14			46.03			34.1
21			45.94			33.6
Mean	2	36	45.99	+49	57	33.8

B. D. +49° 753

1900	h	m	s	°	′	″
Sept. 23	2	36	47.96	+50	10	19.8
Oct. 20			47.79			20.4
Dec. 5			47.87			19.7
26			47.75			19.3
1901						
Jan. 22			47.90			18.5
Mean	2	36	47.85	+50	10	19.5

B. D. +42° 613

1900	h	m	s	°	′	″
Oct. 11	2	37	4.79	+42	46	54.2
Nov. 12			4.80			53.8
Dec. 10			4.85			54.0
1901						
Jan. 8			4.92			54.3
Mean	2	37	4.84	+42	46	54.1

B. D. +42° 614

1900	h	m	s	°	′	″
Sept. 24	2	37	6.21	+43	6	46.2
Oct. 21			6.21			45.7
Dec. 6			6.19			45.2
28			6.21			45.4
Mean	2	37	6.20	+43	6	45.6

B. D. +42° 615

1900	h	m	s	°	′	″
Oct. 9	2	37	6.61	+42	11	45.4
Nov. 5			6.59			45.0
Dec. 27			6.68			44.2
1901						
Jan. 2			6.74			44.8
Mean	2	37	6.66	+42	11	44.8

B. D. +40° 577

1900	h	m	s	°	′	″
Sept. 26	2	37	21.07	+41	4	21.5
Oct. 26			21.06			21.9
Dec. 20			21.11			22.0
1901						
Jan. 3			21.04			22.4
Mean	2	37	21.07	+41	4	22.0

B. D. +48° 746

1900	h	m	s	°	′	″
Sept. 18	2	37	22.01	+48	48	21.1
Oct. 16			22.07			21.1
1901						
Jan. 1			22.14			20.4
22			21.96			19.9
Mean	2	37	22.04	+48	48	20.6

B. D. +50° 617

1900	h	m	s	°	′	″
Sept. 27	2	37	24.17	+50	47	57.7
Oct. 27			24.08			57.3
Dec. 14			24.22			57.5
1901						
Jan. 4			24.29			58.5
Mean	2	37	24.19	+50	47	57.8

B. D. +43° 566

1900	h	m	s	°	′	″
Sept. 25	2	37	34.30	+43	52	18.4
Oct. 24			34.21			19.7
Nov. 30			34.30			20.4
Dec. 19			34.35			18.8
Mean	2	37	34.29	+43	52	19.3

B. D. +40° 581

1900	h	m	s	°	′	″
Oct. 10	2	37	52.98	+40	21	34.4
Nov. 9			52.84			33.8
Dec. 13			52.97			35.8
1901						
Jan. 16			53.00			34.5
Mean	2	37	52.95	+40	21	34.6

B. D. +46° 622

1900	h	m	s	°	′	″
Oct. 6	2	37	53.57	+46	25	11.2
29			53.60			11.3
Nov. 27			53.59			10.8
Dec. 21			53.49			10.7
Mean	2	37	53.56	+46	25	11.0

B. D. +40° 582

1900	h	m	s	°	′	″
Oct. 11	2	37	56.24	+40	40	55.8
Nov. 12			56.20			56.4
Dec. 10			56.16			57.0
1901						
Jan. 8			56.27			56.1
Mean	2	37	56.22	+40	40	56.3

B. D. +50° 620

1900	h	m	s	°	′	″
Sept. 23	2	38	4.87	+50	18	12.9
Oct. 20			4.90			14.3
Dec. 5			4.93			14.0
26			4.91			12.5
Mean	2	38	4.90	+50	18	13.4

B. D. +44° 569

1900	h	m	s	°	′	″
Sept. 24	2	38	11.96	+45	10	35.1
Oct. 21			11.96			34.9
Dec. 6			11.99			35.7
28			12.06			35.8
Mean	2	38	11.99	+45	10	35.4

B. D. +50° 623

1900	h	m	s	°	′	″
Sept. 19	2	38	32.88	+51	9	44.8
Oct. 15			32.93			45.9
1901						
Jan. 7			32.99			44.7
29			32.87			45.4
Mean	2	38	32.92	+51	9	45.2

B. D. +48° 750

1900	h	m	s	°	′	″
Sept. 19	2	38	56.18	+48	32	8.1
Oct. 19			. . . . .			7.7
Nov. 11			56.23			7.9
22			56.27			7.9
1901						
Jan. 15			56.26			8.3
Mean	2	38	56.24	+48	32	8.0

B. D. +47° 692

1900	h	m	s	°	′	″
Sept. 25	2	38	58.49	+47	43	16.6
Oct. 24			58.54			17.3
Nov. 30			58.53			16.3
Dec. 19			58.52			15.8
Mean	2	38	58.52	+47	43	16.5

B. D. +41° 530

1900	h	m	s	°	′	″
Oct. 9	2	39	12.14	+42	6	19.3
Nov. 5			12.24			18.7
Dec. 27			12.36			18.6
1901						
Jan. 2			12.30			18.9
Mean	2	39	12.26	+42	6	18.9

B. D. +46° 628

1900	h	m	s	°	′	″
Oct. 6	2	39	23.07	+46	48	42.9
29			22.97			41.7
Nov. 27			23.13			42.8
Dec. 21			22.95			42.8
Mean	2	39	23.03	+46	48	42.6

B. D. +40° 589

1900	h	m	s	°	′	″
Oct. 11	2	39	28.94	+40	29	21.4
Nov. 12			28.87			21.6
Dec. 10			28.83			23.0
1901						
Jan. 8			28.96			21.5
Mean	2	39	28.90	+40	29	21.9

B. D. +50° 627

1900	h	m	s	°	′	″
Sept. 23	2	39	29.47	+50	11	44.8
Oct. 20			29.41			46.2
Dec. 5			29.54			44.3
26			29.42			44.2
Mean	2	39	29.46	+50	11	44.9

B. D. +48° 752

1900	h	m	s	°	′	″
Sept. 18	2	39	35.62	+48	56	21.8
Oct. 16			35.46			22.2
1901						
Jan. 1			35.61			22.1
22			35.49			22.0
Mean	2	39	35.54	+48	56	22.0

B. D. +39° 628

1900	h	m	s	°	′	″
Oct. 10	2	39	37.90	+40	11	28.0
Nov. 9			37.84			27.2
Dec. 13			38.01			27.4
1901						
Jan. 16			38.06			27.1
Mean	2	39	37.95	+40	11	27.4

B. D. +44° 573

1900	h	m	s	°	′	″
Sept. 24	2	39	44.47	+45	1	46.7
Oct. 21			44.37			46.4
Dec. 6			44.39			45.0
28			44.42			45.0
Mean	2	39	44.41	+45	1	45.8

B. D. +40° 590

1900	h	m	s	°	′	″
Sept. 26	2	39	47.54	+41	2	22.8
Oct. 26			47.46			22.1
Dec. 20			47.57			23.7
1901						
Jan. 3			47.62			24.2
Mean	2	39	47.55	+41	2	23.2

B. D. +51° 626

1900	h	m	s	°	′	″
Sept. 27	2	39	53.24	+51	47	3.8
Oct. 27			53.36			3.5
Dec. 14			53.28			4.2
1901						
Jan. 4			53.39			4.8
Mean	2	39	53.32	+51	47	4.1

B. D. +43° 574

1900	h	m	s	°	′	″
Oct. 9	2	40	0.88	+43	20	39.4
Nov. 5			0.84			39.6
Dec. 27			0.98			38.9
1901						
Jan. 2			1.00			39.0
18			0.82			39.5
Mean	2	40	0.90	+43	20	39.3

B. D. +51° 628

1900	h	m	s	°	′	″
Sept. 27	2	40	6.34	+51	43	41.3
Oct. 27			6.42			40.7
Dec. 14			6.41			41.2
1901						
Jan. 4			6.37			41.2
Mean	2	40	6.38	+51	43	41.1

B. D. +45° 660

1900	h	m	s	°	′	″
Sept. 26	2	40	33.93	+45	29	47.3
Oct. 26			33.92			46.6
Dec. 20			34.06			47.2
1901						
Jan. 3			33.93			47.6
Mean	2	40	33.96	+45	29	47.2

B. D. +41° 538

1900	h	m	s	°	′	″
Oct. 10	2	40	42.71	+41	45	18.1
Nov. 4			42.67			19.9
9			42.61			18.8
Dec. 13			42.66			20.0
1901						
Jan. 16			42.66			19.0
Mean	2	40	42.66	+41	45	19.2

B. D. +42° 628

1900	h	m	s	°	′	″
Oct. 11	2	40	53.14	+42	58	57.0
Nov. 12			53.07			57.2
Dec. 10			53.08			57.7
1901						
Jan. 8			53.29			57.2
Mean	2	40	53.14	+42	58	57.3

B. D. +43° 576

1900	h	m	s	°	′	″
Sept. 19	2	40	58.84	+43	51	10.1
Oct. 19			58.90			9.2
Nov. 22			58.94			9.6
1901						
Jan. 15			58.91			10.0
Mean	2	40	58.90	+43	51	9.7

B. D. +44° 577

1900	h	m	s	°	′	″
Sept. 24	2	41	0.78	+44	50	44.8
Nov. 11			0.61			45.5
Dec. 6			0.73			45.2
28			0.79			44.9
Mean	2	41	0.73	+44	50	45.1

B. D. +49° 773

1900	h	m	s	°	′	″
Sept. 27	2	41	. . . .	+49	39	34.2
Nov. 4			5.17			33.9
Dec. 14			5.16			32.7
1901						
Jan. 4			5.20			33.9
Mean	2	41	5.18	+49	39	33.7

B. D. +50° 630

1900	h	m	s	°	′	″
Sept. 23	2	41	6.02	+51	7	57.0
Oct. 15			6.00			58.9
1901						
Jan. 7			6.08			57.4
29			6.07			56.7
Mean	2	41	6.04	+51	7	57.5

B. D. +47° 698

1900	h	m	s	°	′	″
Sept. 25	2	41	20.21	+47	46	43.3
Oct. 24			20.20			43.8
Nov. 30			20.28			43.9
Dec. 19			20.30			44.2
Mean	2	41	20.25	+47	46	43.8

B. D. +48° 760

1900	h	m	s	°	′	″
Sept. 18	2	41	25.52	+48	48	7.1
Oct. 16			25.33			7.8
1901						
Jan. 1			25.52			6.7
22			25.52			5.6
Mean	2	41	25.47	+48	48	6.8

B. D. +41° 541

1900	h	m	s	°	′	″
Oct. 10	2	41	26.39	+41	26	52.2
Nov. 9			26.28			55.9
Dec. 13			26.34			53.6
1901						
Jan. 16			26.35			. . . .
18			26.39			54.9
Mean	2	41	26.35	+41	26	54.2

B. D. +50° 636

1900	h	m	s	°	′	″
Sept. 23	2	41	35.87	+50	28	44.7
Oct. 20			35.69			44.6
Dec 5			35.82			44.0
26			35.76			[41.8]
Mean	2	41	35.78	+50	28	44.4

B. D. +43° 579

1900	h	m	s	°	′	″
Oct. 9	2	41	43.47	+43	12	15.7
Nov. 5			43.54			15.2
Dec. 27			43.68			14.5
1901						
Jan. 2			43.56			14.8
Mean	2	41	43.56	+43	12	15.0

B. D. +47° 700

1900	h	m	s	°	′	″
Sept. 26	2	41	43.89	+48	2	9.5
Oct. 26			43.84			10.2
Dec. 20			43.89			10.2
1901						
Jan. 3			43.78			9.3
Mean	2	41	43.85	+48	2	9.8

B. D. +46° 638

1900	h	m	s	°	′	″
Oct. 6	2	41	50.64	+46	32	46.7
29			50.66			47.1
Nov. 27			50.85			47.4
Dec. 21			50.62			47.1
Mean	2	41	50.69	+46	32	47.1

B. D. +48° 762

1900	h	m	s	°	′	″
Sept. 18	2	42	1.32	+48	45	. . . .
Oct. 16			1.26			59.9
1901						
Jan. 1			1.52			59.5
22			1.40			58.4
Mean	2	42	1.38	+48	45	59.3

B. D. +40° 602

1900	h	m	s	°	′	″
Oct. 11	2	42	4.39	+40	33	40.4
Nov. 12			4.31			40.5
Dec. 10			4.27			40.1
1901						
Jan. 8			4.31			39.9
Mean	2	42	4.32	+40	33	40.2

B. D. +41° 543

1900	h	m	s	°	′	″
Oct. 10	2	42	12.55	+41	59	49.1
Nov. 9			12.49			48.1
Dec. 13			12.57			48.7
1901						
Jan. 16			12.65			49.1
Mean	2	42	12.56	+41	59	48.8

B. D. +42° 633

1900	h	m	s	°	′	″
Sept. 25	2	42	12.78	+42	18	57.9
Oct. 24			12.84			57.6
Nov. 30			12.91			58.4
Dec. 19			12.90			56.4
Mean	2	42	12.86	+42	18	57.6

B. D. +47° 702

1900	h	m	s	°	′	″
Sept. 19	2	42	19.18	+47	12	32.0
Oct. 19			19.29			30.3
Nov. 22			19.44			30.1
1901						
Jan. 15			19.33			31.2
18			19.34			30.1
Mean	2	42	19.32	+47	12	30.7

B. D. +48° 763

1900	h	m	s	°	′	″
Sept. 18	2	42	27.54	+48	53	4.5
Oct. 16			27.49			4.7
1901						
Jan. 1			27.68			4.9
22			27.70			4.3
Mean	2	42	27.60	+48	53	4.6

B. D. +51° 633

1900	h	m	s	°	′	″
Sept. 16	2	42	28.18	+51	13	35.0
Oct. 15			28.10			36.8
1901						
Jan. 7			28.21			35.6
29			28.22			35.4
Mean	2	42	28.18	+51	13	35.7

B. D. +46° 641

1900	h	m	s	°	′	″
Sept. 24	2	42	28.18	+46	48	5.3
Oct. 21			28.17			3.9
Dec. 6			28.27			4.7
28			28.28			4.9
Mean	2	42	28.22	+46	48	4.7

B.D. +43° 580

1900	h	m	s	°	′	″
Oct. 9	2	42	34.66	+43	53	53.0
Nov. 5			34.76			53.1
Dec. 27			34.72			52.5
1901						
Jan. 2			34.79			52.4
Mean	2	42	34.73	+43	53	52.8

B. D. +48° 764

1900	h	m	s	°	′	″
Sept. 23	2	42	43.39	+48	27	50.1
Oct. 20			43.34			49.9
Dec. 5			43.33			50.1
26			43.35			47.6
Mean	2	42	43.35	+48	27	49.4

B. D. +45° 662

1900	h	m	s	°	′	″
Oct. 6	2	42	55.00	+45	59	10.3
29			55.03			10.4
Nov. 27			55.11			11.4
Dec. 21			54.96			11.0
Mean	2	42	55.02	+45	59	10.8

B. D. +49° 782

1900	h	m	s	°	′	″
Sept. 27	2	42	58.84	+49	35	53.6
Oct. 27			58.94			53.8
Dec. 14			58.94			53.5
1901						
Jan. 4			58.88			53.9
Mean	2	42	58.90	+49	35	53.7

B. D. +44° 582

1900	h	m	s	°	′	″
Sept. 26	2	43	4.76	+44	59	17.7
Nov. 12			4.74			18.2
Dec. 20			4.82			17.4
1901						
Jan. 3			4.75			17.4
Mean	2	43	4.77	+44	59	17.7

B. D. +47° 709

1900	h	m	s	°	′	″
Sept. 16	2	43	21.27	+47	43	51.3
Oct. 15			21.18			51.7
1901						
Jan. 7			21.32			50.6
29			21.39			50.0
Mean	2	43	21.29	+47	43	50.9

B. D. +43° 583

1900	h	m	s	°	′	″
Sept. 24	2	43	26.37	+43	23	52.5
Oct. 21			26.35			53.0
Dec. 6			26.38			53.3
28			26.45			51.7
Mean	2	43	26.39	+43	23	52.6

B.D. +42° 637

1900	h	m	s	°	′	″
Sept. 25	2	43	27.60	+42	23	2.9
Oct. 24			27.51			4.4
Nov. 30			27.74			4.7
Dec. 19			27.68			3.7
Mean	2	43	27.63	+42	23	3.9

B. D. +46° 644

1900	h	m	s	°	′	″
Sept. 19	2	43	34.65	+46	59	. .
Oct. 19			34.59			53.4
Nov. 27			34.81			53.2
1901						
Jan. 15			34.57			52.7
Mean	2	43	34.66	+46	59	53.1

B. D. +40° 610

1900	h	m	s	°	′	″
Oct. 10	2	43	51.62	+40	24	17.2
Nov. 12			51.58			16.0
Dec. 10			51.59			16.3
1901						
Jan. 8			51.64			16.5
Mean	2	43	51.61	+40	24	16.5

B. D. +47° 711

1900	h	m	s	°	′	″
Sept. 16	2	43	53.29	+47	52	33.2
Oct. 15			53.27			33.8
1901						
Jan. 7			53.39			33.0
18			53.20			34.6
Mean	2	43	53.29	+47	52	33.6

B. D. +45° 665

1900	h	m	s	°	′	″
Sept. 27	2	44	0.37	+45	25	. .
Oct. 11			0.52			21.6
27			0.48			21.5
Dec. 14			0.54			21.1
1901						
Jan. 4			0.61			21.5
Mean	2	44	0.50	+45	25	21.4

B. D. +40° 612

1900	h	m	s	°	′	″
Oct. 6	2	44	5.71	+40	52	57.4
20			5.70			59.3
Dec. 5			5.75			58.7
26			5.69			57.4
Mean	2	44	5.71	+40	52	58.2

B. D. +42° 638

1900	h	m	s	°	′	″
Sept. 25	2	44	6.27	+42	54	0.5
Oct. 24			6.15			1.2
Nov. 11			6.16			0.2
30			6.34			2.2
Dec. 19			6.43			1.0
Mean	2	44	6.27	+42	54	1.0

B. D. +43° 586

1900	h	m	s	°	′	″
Oct. 9	2	44	6.77	+43	56	39.3
Nov. 5			6.84			39.9
Dec. 28			6.90			38.8
1901						
Jan. 2			6.82			38.8
Mean	2	44	6.83	+43	56	39.2

B. D. +41° 550

1900	h	m	s	°	′	″
Oct. 10	2	44	7.41	+41	31	49.5
Nov. 9			7.31			49.5
Dec. 13			7.41			49.4
1901						
Jan. 16			7.47			49.2
Mean	2	44	7.40	+41	31	49.4

B. D. +45° 667

1900	h	m	s	°	′	″
Sept. 26	2	44	9.51	+45	39	30.9
Oct. 26			9.51			30.6
Dec. 20			9.57			30.8
1901						
Jan. 3			9.46			30.6
Mean	2	44	9.51	+45	39	30.7

B. D. +48° 770

1900	h	m	s	°	′	″
Sept. 18	2	44	19.64	+48	56	9.1
Oct. 16			19.59			10.2
1901						
Jan. 1			19.73			9.9
22			19.74			9.1
Mean	2	44	19.68	+48	56	9.6

B.D. +47° 714

1900	h	m	s	°	′	″
Sept. 19	2	44	40.02	+48	5	32.1
Oct. 19			39.92			33.3
Nov. 22			40.00			32.7
1901						
Jan. 15			39.93			32.6
16			40.05			32.9
Mean	2	44	39.98	+48	5	32.7

B. D. +45° 669

1900	h	m	s	°	′	″
Sept. 27	2	44	55.60	+45	34	. .
Oct. 11			55.77			26.1
27			55.68			26.0
Dec. 14			55.71			25.9
1901						
Jan. 4			55.86			25.5
Mean	2	44	55.72	+45	34	25.9

B. D. +46° 648

1900	h	m	s	°	′	″
Sept. 25	2	44	59.93	+46	25	46.4
Oct. 24			59.80			46.0
Nov. 30		45	0.00			47.2
Dec. 19			0.00			46.3
Mean	2	44	59.93	+46	25	46.5

B. D. +44° 591

1900	h	m	s	°	′	″
Oct. 6	2	45	6.77	+44	38	48.1
29			6.72			47.8
Nov. 4			6.81			47.7
27			6.84			47.2
Dec. 21			6.75			46.8
Mean	2	45	6.78	+44	38	47.5

B. D. +44° 593

1900	h	m	s	°	′	″
Oct. 6	2	45	16.87	+44	28	55.0
29			16.85			54.9
Nov. 27			16.98			54.8
Dec. 21			16.78			54.6
Mean	2	45	16.87	+44	28	54.8

B. D. +48° 777

1900	h	m	s	°	′	″
Sept. 23	2	45	20.16	+48	28	15.3
Oct. 20			20.05			15.3
Dec. 5			20.24			13.9
26			20.26			13.8
Mean	2	45	20.18	+48	28	14.6

B. D. +47° 720

1900	h	m	s	°	′	″
Sept. 26	2	45	37.43	+47	30	3.5
Nov. 5			37.36			4.5
Dec. 20			37.37			3.7
1901						
Jan. 3			37.35			4.4
Mean	2	45	37.38	+47	30	4.0

B. D. +48° 782

1900	h	m	s	°	′	″
Sept. 18	2	45	38.74	+49	5	23.0
Oct. 15			38.72			24.9
Dec. 10			38.80			23.7
1901						
Jan. 7			38.85			23.4
Mean	2	45	38.78	+49	5	23.8

B. D. +47° 721

1900	h	m	s	°	′	″
Sept. 19	2	45	50.89	+48	0	31.9
Oct. 19			50.88			31.9
Nov. 22			51.13			31.0
1901						
Jan. 15			51.02			31.9
Mean	2	45	50.98	+48	0	31.7

B. D. +43° 593

1900	h	m	s	°	′	″
Sept. 24	2	45	52.73	+43	21	43.5
Oct. 21			52.69			43.8
Dec. 6			52.88			43.0
28			52.77			43.0
Mean	2	45	52.77	+43	21	43.3

B. D. +41° 556

1900	h	m	s	°	′	″
Oct. 10	2	45	54.79	+41	36	33.2
Nov. 9			54.73			33.5
Dec. 13			54.77			34.0
1901						
Jan. 16			54.83			33.7
Mean	2	45	54.78	+41	36	33.6

B. D. +42° 643

1900	h	m	s	°	′	″
Oct. 11	2	46	6.27	+42	21	30.3
Nov. 12			6.23			30.0
Dec. 10			6.29			30.0
1901						
Jan. 8			6.27			29.8
Mean	2	46	6.26	+42	21	30.0

B. D. +46° 652

1900	h	m	s	°	′	″
Sept. 24	2	47	16.62	+46	45	7.3
Oct. 21			16.56			7.6
Dec. 6			16.66			7.3
28			16.66			7.9
Mean	2	47	16.62	+46	45	7.5

B. D. +42° 650

1900	h	m	s	°	′	″
Oct. 9	2	48	26.75	+42	48	22.5
Nov. 5			26.91			21.5
Dec. 14			26.72			21.6
1901						
Jan. 2			26.86			21.8
Mean	2	48	26.81	+42	48	21.8

B. D. +46° 656

1900	h	m	s	°	′	″
Sept. 24	2	48	48.50	+46	53	51.8
Oct. 21			48.29			51.8
Dec. 6			48.53			51.9
28			48.49			51.2
Mean	2	48	48.45	+46	53	51.7

B. D. +45° 679

1900	h	m	s	°	′	″
Sept. 27	2	49	15.07	+45	26	1.5
Oct. 27			15.08			1.1
Dec. 14			14.97			1.0
1901						
Jan. 4			14.92			0.4
Mean	2	49	15.01	+45	26	1.0

B. D. +44° 598

1900	h	m	s	°	′	″
Oct. 6	2	49	29.02	+44	34	37.9
29			28.93			37.6
Nov. 27			28.81			39.0
Dec. 21			28.86			37.1
Mean	2	49	28.90	+44	34	37.9

CATALOGUE

OF

EROS REFERENCE STARS.

NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0	NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0
	1900+		h m s		° ′ ″		1900+		h m s		° ′ ″
B. D.+49° 399	0.87	4	1 24 0.50	4	+49 25 30.5	B. D.+43° 343	0.90	4	1 33 21.06	4	+43 52 39.2
B. D.+46° 370	0.90	4	1 24 6.11	4	46 29 29.0	B. D.+51° 360	0.84	4	1 33 34.46	4	52 8 21.4
B. D.+51° 317	0.84 0.88	4	1 24 26.19	3	51 34 41.8	B. D.+41° 321	0.88	4	1 33 41.52	4	42 13 51.4
B. D.+47° 429	0.89	4	1 24 33.57	4	47 22 51.1	B. D.+53° 363	0.86	4	1 33 51.54	4	53 21 39.3
B. D.+49° 401	0.85	4	1 24 37.85	4	50 9 7.2	B. D.+51° 363	0.87	4	1 34 2.64	4	51 21 27.3
B. D.+49° 400	0.86	4	1 24 38.46	4	50 5 55.7	B. D.+51° 364	0.84	4	1 34 10.42	4	52 1 21.9
B. D.+46° 373	0.90	4	1 24 47.96	4	47 3 4.6	B. D.+44° 346	0.88	4	1 34 45.33	4	44 16 29.5
B. D.+47° 434^1	0.89	4	1 24 51.75	4	47 54 4.6	B. D.+44° 347	0.87	4	1 34 48.02	4	44 30 48.6
B. D.+49° 403	0.86	4	1 24 52.29	4	49 54 48.9	B. D.+45° 416	0.86	4	1 35 22.71	4	45 54 24.0
B. D.+47° 434^2	0.89	4	1 24 53.68	4	+47 54 13.0	B. D.+52° 406	0.84	4	1 35 23.33	4	+52 52 14.7
B. D.+48° 453	0.87	4	1 24 54.35	4	+48 49 42.6	B. D.+44° 352	0.90	4	1 35 50.88	4	+45 4 17.8
B. D.+48° 454	0.88	4	1 25 25.98	4	48 31 27.8	B. D.+42° 351	0.88	4	1 35 58.02	4	42 21 32.2
B. D.+48° 455	0.89 0.86	4	1 25 26.41	5	48 16 17.8	B. D.+42° 352	0.86	4	1 36 3.76	4	43 8 4.6
B. D.+50° 297	0.88	7	1 25 41.79	7	50 55 14.1	B. D.+42° 354	0.88	4	1 36 16.01	4	42 30 57.1
B. D.+51° 323	0.84 0.88	4	1 25 46.58	3	51 57 17.8	B. D.+41° 329	0.95 0.94	6	1 36 16.72	5	41 25 26.1
B. D.+50° 298	0.86	4	1 26 12.76	4	50 38 52.2	B. D.+45° 422	0.88	4	1 36 23.99	4	45 32 10.0
B. D.+47° 442	0.88	4	1 26 16.99	4	47 54 12.9	B. D.+45° 424	0.88	4	1 37 4.34	4	45 26 11.4
B. D.+50° 299	0.89	4	1 26 22.61	4	50 18 35.0	B. D.+44° 354	0.90	4	1 37 11.21	4	44 49 5.3
B. D.+50° 300	0.91 0.88	6	1 26 48.76	5	50 58 5.0	B. D.+52° 420	0.86	4	1 37 17.25	4	52 22 54.5
B. D.+50° 301	0.89	4	1 26 59.99	4	+50 22 1.6	B. D.+42° 356	0.86	4	1 37 17.46	4	+43 12 1.8
B. D.+48° 463	0.88	4	1 27 16.28	4	+48 30 19.5	B. D.+53° 375	0.87	4	1 37 25.57	4	+53 26 41.7
B. D.+49° 412	0.92	5	1 27 49.34	5	49 37 3.6	B. D.+54° 368	0.85	5	1 37 47.01	5	54 22 59.9
B. D.+51° 331	0.88 0.85	4	1 27 58.76	3	51 19 13.9	B. D.+52° 424	0.84	4	1 37 58.58	4	52 41 8.9
B. D.+45° 376	0.90	4	1 28 0.47	4	45 27 47.5	B. D.+42° 360	0.88	4	1 38 5.33	4	42 44 14.0
B. D.+47° 450	0.88	4	1 28 5.43	4	47 54 30.5	B. D.+42° 361	0.86	4	1 38 13.64	4	43 8 42.5
B. D.+49° 414	0.86	5	1 28 19.67	5	50 1 2.4	B. D.+52° 433	0.86	4	1 39 43.40	4	53 6 22.4
B. D.+48° 470	0.88	4	1 28 20.40	4	49 3 3.6	B. D.+43° 364	0.88	4	1 40 15.70	4	44 8 45.5
B. D.+45° 379	0.90 0.94	5	1 28 33.26	4	46 0 46.5	B. D.+42° 370	0.86	4	1 40 16.77	4	43 12 16.9
B. D.+51° 334	0.86 0.83	4	1 28 33.84	3	51 38 29.1	B. D.+40° 364	0.93 0.90	5	1 40 37.14	4	41 3 5.1
B. D.+44° 326	0.89	4	1 28 37.81	4	+45 4 58.2	B. D.+41° 342	0.90	4	1 41 11.32	4	+41 41 38.4
B. D.+45° 383	0.90	4	1 29 15.89	4	+45 19 0.9	B. D.+53° 386	0.87	4	1 41 14.78	4	+53 30 17.6
B. D.+44° 329	0.88	4	1 29 20.40	4	44 24 51.8	B. D.+42° 373	0.88	4	1 41 25.40	4	42 34 50.6
B. D.+51° 338	0.84	4	1 29 22.58	4	51 39 8.2	B. D.+53° 388	0.90	5	1 41 35.31	5	53 23 25.6
B. D.+46° 389	0.92	4	1 29 30.54	4	46 22 51.9	B. D.+41° 347	0.90 0.94	4	1 41 45.16	3	41 55 24.5
B. D.+46° 393	0.93	5	1 29 59.29	5	46 36 11.4	B. D.+52° 441	0.84	4	1 41 53.11	4	52 44 58.9
B. D.+48° 477	0.87	4	1 30 3.20	4	48 41 35.7	B. D.+42° 375	0.88	4	1 41 55.75	4	42 42 44.0
B. D.+49° 416	0.92	6	1 30 5.77	6	50 12 23.6	B. D.+54° 383	0.84	4	1 42 39.74	4	54 38 38.1
B. D.+46° 397	0.91	4	1 30 18.76	4	46 48 53.7	B. D.+41° 352	0.88	4	1 42 55.52	4	42 12 33.9
B. D.+47° 460	0.88	4	1 30 20.32	4	48 12 43.4	B. D.+53° 395	0.84	5	1 43 11.09	5	53 25 1.6
B. D.+51° 339	0.87	4	1 30 24.44	4	+51 14 16.1	B. D.+43° 373	0.90	5	1 43 11.25	5	+43 14 15.1
B. D.+47° 462	0.90	4	1 30 32.91	4	+47 33 44.9	B. D.+41° 353	0.90	4	1 43 14.34	4	+41 29 28.8
B. D.+52° 387	0.84	4	1 30 39.46	4	52 35 43.2	B. D.+54° 388	0.84	4	1 43 57.78	4	54 43 14.1
B. D.+47° 463	0.88	4	1 30 40.42	4	47 48 17.4	B. D.+53° 398	0.92 0.89	7	1 44 0.56	6	53 14 45.9
B. D.+50° 314	0.86	4	1 30 44.70	4	50 44 59.8	B. D.+54° 392	0.87	4	1 44 42.24	4	54 54 37.7
B. D.+49° 418	0.91	5	1 30 56.33	5	49 25 43.1	B. D.+54° 393	0.85	4	1 44 53.55	4	54 25 44.3
B. D.+51° 344	0.83	5	1 31 9.52	5	52 7 15.1	B. D.+42° 388	0.87	4	1 45 3.13	4	43 1 46.7
B. D.+46° 404	0.93	5	1 31 12.91	5	46 26 18.7	B. D.+53° 402	0.87 0.89	7	1 45 11.74	8	53 22 19.6
B. D.+45° 392	0.86	5	1 31 13.76	5	45 56 57.2	B. D.+42° 390	0.88	4	1 45 21.89	4	42 16 6.6
B. D.+45° 394	0.90	4	1 31 25.18	4	45 26 52.3	B. D.+54° 396	0.84	4	1 45 25.13	4	54 39 8.4
B. D.+49° 422	0.86	4	1 31 42.27	4	+50 5 48.4	B. D.+40° 384	0.90	4	1 45 37.38	4	+40 57 32.8
B. D.+44° 335	0.91	5	1 32 5.17	5	+44 18 30.9	B. D.+39° 421	0.88	4	1 46 25.60	4	+40 3 11.4
B. D.+44° 337	0.90	4	1 32 20.60	4	45 9 17.8	B. D.+41° 362	0.90	4	1 46 43.19	4	41 20 52.0
B. D.+45° 398	0.86	4	1 32 22.35	4	45 55 7.3	B. D.+40° 390	0.90	4	1 46 49.11	4	40 59 28.1
B. D.+44° 341	0.87	4	1 32 30.37	4	44 53 26.5	B. D.+41° 364	0.88	4	1 47 10.15	4	42 2 16.1
B. D.+52° 393	0.84	4	1 32 31.80	4	52 43 47.0	B. D.+54° 408	0.86	4	1 47 11.07	4	55 6 16.9
B. D.+43° 337	0.91	5	1 32 39.81	5	43 38 8.9	B. D.+40° 394	0.88	4	1 47 17.39	4	40 14 11.0
B. D.+53° 355	0.87	4	1 33 5.06	4	53 37 37.2	B. D.+53° 416	0.84	5	1 48 7.47	5	53 23 58.9
B. D.+43° 341	0.90	4	1 33 10.32	4	43 31 33.9	B. D.+54° 413	0.86	4	1 48 13.28	4	54 14 10.7
B. D.+52° 399	0.86	4	1 33 13.56	4	52 24 26.8	B. D.+53° 419	0.87	4	1 48 25.87	4	53 41 49.2
B. D.+51° 357	0.85	4	1 33 13.77	4	+51 45 32.5	B. D.+40° 400	0.90	4	1 48 27.45	4	+40 23 51.9

NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0	NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0
	1900+		h m s		° ′ ″		1900+		h m s		° ′ ″
B. D.+39° 431	0.88	4	1 48 37.53	4	+40 9 50.5	B. D.+54° 535	0.84	4	2 16 54.30	4	+54 54 34.0
B. D.+40° 401	0.90	4	1 48 39.02	4	41 8 58.6	B. D.+53° 519	0.87	4	2 17 20.22	4	53 44 9.8
B. D.+39° 434	0.88	4	1 48 52.70	4	40 12 43.7	B. D.+53° 521	0.87	4	2 17 28.86	4	53 19 11.2
B. D.+54° 415	0.90	5	1 49 8.48	5	55 5 11.3	B. D.+52° 576	0.85	4	2 17 35.44	4	52 59 36.4
B. D.+55° 440	0.89 0.85	3	1 49 13.77	4	55 20 14.1	B. D.+54° 539	0.85	4	2 18 15.16	4	54 48 4.0
B. D.+54° 417	0.82 0.88	3	1 49 32.36	4	55 9 55.0	B. D.+52° 580	0.85	4	2 19 3.22	4	52 55 1.8
B. D.+41° 374	0.90	4	1 50 28.44	4	41 24 8.8	B. D.+53° 525	0.86	4	2 19 30.31	4	53 40 27.0
B. D.+41° 377	0.91	4	1 51 9.54	4	41 16 38.1	B. D.+52° 581	0.85	4	2 20 30.60	4	53 2 59.1
B. D.+54° 424	0.84	4	1 51 12.97	4	54 52 52.8	B. D.+54° 554	0.86 0.84	4	2 21 46.80	5	54 31 35.7
B. D.+40° 406	0.90	4	1 51 13.92	4	+40 16 19.4	B. D.+52° 585	0.85	4	2 21 54.87	4	+53 5 36.6
B. D.+53° 428	0.87	4	1 51 36.55	4	+54 7 12.0	B. D.+52° 587	0.87	4	2 22 52.51	4	+52 36 52.6
B. D.+54° 429	0.87	4	1 52 10.23	4	55 5 40.5	B. D.+53° 532	0.86	4	2 23 5.37	4	53 24 20.5
B. D.+40° 412	0.90	4	1 52 20.71	4	40 25 34.6	B. D.+54° 565	0.86 0.83	4	2 24 32.76	5	54 27 4.4
B. D.+39° 447	0.88	4	1 52 22.30	4	40 3 3.8	B. D.+51° 587	0.88	4	2 24 57.60	4	51 51 46.1
B. D.+55° 464	0.84	4	1 52 50.92	4	55 17 56.5	B. D.+52° 592	0.86	4	2 25 3.18	4	52 23 28.2
B. D.+54° 431	0.86	4	1 52 56.38	4	54 20 9.4	B. D.+53° 539	0.87	4	2 25 30.11	4	53 52 0.3
B. D.+39° 448	0.88	4	1 53 36.30	4	40 4 42.7	B. D.+53° 540	0.85	4	2 25 49.34	4	53 32 5.8
B. D.+40° 415	0.91	4	1 53 39.20	4	40 51 51.6	B. D.+53° 541	0.85	4	2 25 55.88	4	54 6 8.2
B. D.+37° 452	0.90	4	1 54 18.55	4	38 6 44.8	B. D.+52° 595	0.86	4	2 27 16.86	4	52 23 26.1
B. D.+39° 450	0.89	4	1 54 28.78	4	+39 28 55.8	B. D.+52° 597	0.85	4	2 27 23.12	4	+52 57 53.8
B. D.+40° 421	0.91	4	1 54 41.29	4	+40 52 34.9	B. D.+51° 594	0.88	4	2 27 39.73	4	+51 31 57.2
B. D.+38° 392	0.90	4	1 54 46.83	4	39 8 29.8	B. D.+50° 587	0.87	4	2 28 23.88	4	50 45 2.3
B. D.+38° 391	0.88	4	1 54 48.49	4	39 7 21.5	B. D.+53° 546	0.85	4	2 28 31.94	4	53 14 57.0
B. D.+40° 423	0.88	4	1 55 9.06	4	40 43 39.8	B. D.+53° 547	0.87	4	2 28 34.74	4	53 52 42.6
B. D.+53° 437	0.90	5	1 55 22.69	5	53 32 1.0	B. D.+51° 598	0.85	4	2 29 15.65	4	52 2 59.3
B. D.+53° 439	0.87	4	1 55 38.38	4	54 0 15.4	B. D.+51° 599	0.88	4	2 29 55.80	4	51 31 28.3
B. D.+39° 454	0.88	4	1 55 45.20	4	40 11 2.8	B. D.+52° 602	0.85	5	2 30 52.52	5	52 22 39.9
B. D.+54° 444	0.84	4	1 56 26.93	4	54 45 0.0	B. D.+50° 589	0.86	4	2 31 23.14	4	50 26 1.4
B. D.+37° 465	0.90	4	1 56 38.18	4	38 3 42.2	B. D.+51° 604	0.87	4	2 31 37.46	4	51 38 37.2
B. D.+53° 440	0.85	4	1 56 44.99	4	+54 12 42.8	B. D.+37° 589	0.89	4	2 32 10.06	4	+37 31 9.9
B. D.+55° 484	0.89	5	1 57 4.11	5	+55 17 12.8	B. D.+50° 595	0.86	4	2 32 25.02	4	+50 21 3.7
B. D.+37° 468	0.90	4	1 57 6.31	4	38 9 53.0	B. D.+49° 733	0.87	4	2 32 49.22	4	50 5 13.0
B. D.+54° 448	0.85	4	1 57 6.41	4	54 38 21.2	B. D.+52° 609	0.86	4	2 33 23.92	4	52 22 23.6
B. D.+39° 457	0.90	4	1 57 45.25	4	39 34 30.5	B. D.+50° 599	0.89	4	2 33 34.34	4	51 11 39.0
B. D.+54° 452	0.85	4	1 57 58.02	4	54 16 33.2	B. D.+50° 601	0.87	4	2 33 42.74	4	51 11 34.5
B. D.+54° 453	0.86	4	1 58 17.98	4	55 8 35.9	B. D.+40° 567	0.86	5	2 34 12.32	5	40 53 9.3
B. D.+38° 402	0.90	4	1 58 43.39	4	38 57 18.4	B. D.+49° 741	0.88	4	2 34 18.28	4	49 34 55.9
B. D.+54° 457	0.85 0.87	4	1 59 8.42	3	54 26 55.7	B. D.+49° 743	0.88	4	2 34 25.04	4	49 41 20.9
B. D.+39° 464	0.90	4	1 59 43.28	4	39 16 52.6	B. D.+37° 596	0.91 0.95	5	2 34 54.30	5	37 48 15.2
B. D.+53° 451	0.88	4	2 0 3.10	4	+53 49 48.8	B. D.+51° 616	0.86	4	2 35 21.66	4	+52 0 20.8
B. D.+38° 408	0.91	4	2 0 22.64	4	+38 25 18.4	B. D.+39° 609	0.90	4	2 35 37.90	4	+40 4 41.8
B. D.+39° 468	0.88	4	2 0 30.35	4	40 7 15.5	B. D.+40° 570	0.86	5	2 35 38.40	5	40 57 58.0
B. D.+53° 453	0.85	4	2 1 36.54	4	54 7 37.9	B. D.+51° 618	0.88	4	2 35 38.81	4	51 28 31.2
B. D.+37° 486	0.90	4	2 2 27.09	4	37 23 5.1	B. D.+41° 517	0.91	5	2 35 47.42	5	41 44 52.3
B. D.+55° 527	0.90 0.85	3	2 2 48.21	4	55 22 45.4	B. D.+52° 616	0.87	4	2 35 56.70	4	53 5 58.8
B. D.+38° 416	0.90	4	2 2 49.10	4	38 52 25.5	B. D.+39° 613	0.92	4	2 36 14.20	4	39 21 55.2
B. D.+37° 488	0.90 0.92	5	2 2 54.48	4	38 3 19.7	B. D.+52° 617	0.86	4	2 36 19.74	4	52 19 48.1
B. D.+54° 469	0.86	4	2 3 9.26	4	55 0 48.3	B. D.+42° 610	0.88	4	2 36 34.77	4	42 35 5.4
B. D.+53° 459	0.88	4	2 3 20.94	4	53 51 27.6	B. D.+51° 620	0.93	7	2 36 38.24	7	51 59 16.9
B. D.+53° 460	0.87	4	2 3 24.92	4	+53 22 14.7	B. D.+50° 613	0.90	4	2 36 40.21	4	+51 6 29.1
B. D.+54° 470	0.85	4	2 3 27.92	4	+54 49 6.6	B. D.+49° 752	0.88	4	2 36 45.99	4	+49 57 33.8
B. D.+53° 470	0.86 0.85	5	2 4 59.71	4	54 4 47.1	B. D.+49° 753	0.90	5	2 36 47.85	5	50 10 19.5
B. D.+54° 483	0.86	4	2 6 11.50	4	54 38 27.3	B. D.+42° 613	0.90	4	2 37 4.84	4	42 46 54.1
B. D.+53° 474	0.88	4	2 6 26.17	4	53 44 57.2	B. D.+42° 614	0.87	4	2 37 6.20	4	43 6 45.6
B. D.+54° 494	0.85	4	2 7 42.19	4	54 50 56.5	B. D.+42° 615	0.90	4	2 37 6.66	4	42 11 44.8
B. D.+53° 485	0.87	4	2 7 58.35	4	53 34 28.2	B. D.+40° 577	0.88	4	2 37 21.07	4	41 4 22.0
B. D.+53° 486	0.84	4	2 8 4.94	4	54 3 51.6	B. D.+48° 746	0.89	4	2 37 22.04	4	48 48 20.6
B. D.+55° 551	0.85	4	2 8 6.38	4	55 16 48.0	B. D.+50° 617	0.88	4	2 37 24.19	4	50 47 57.8
B. D.+54° 497	0.86	4	2 8 17.23	4	54 37 13.7	B. D.+43° 566	0.86	4	2 37 34.29	4	43 52 19.3
B. D.+52° 549	0.87	4	2 8 28.09	4	+53 6 39.4	B. D.+40° 581	0.91	4	2 37 52.95	4	+40 21 34.6
B. D.+54° 500	0.85	4	2 8 34.42	4	+55 7 42.2	B. D.+46° 622	0.87	4	2 37 53.56	4	+46 25 11.0
B. D.+53° 494	0.85	4	2 11 6.98	4	54 0 2.9	B. D.+40° 582	0.90	4	2 37 56.22	4	40 40 56.3
B. D.+53° 497	0.87	4	2 11 34.92	4	53 49 0.0	B. D.+50° 620	0.86	4	2 38 4.90	4	50 18 13.4
B. D.+54° 511	0.85	4	2 11 35.78	4	55 4 41.1	B. D.+44° 569	0.87	4	2 38 11.99	4	45 10 35.4
B. D.+52° 563	0.86	4	2 12 6.10	4	53 6 51.0	B. D.+50° 623	0.90	4	2 38 32.92	4	51 9 45.2
B. D.+53° 501	0.86	4	2 12 6.50	4	53 38 0.8	B. D.+48° 750	0.88 0.86	4	2 38 56.24	5	48 32 8.0
B. D.+54° 525	0.84	4	2 14 4.08	4	54 56 55.2	B. D.+47° 692	0.86	4	2 38 58.52	4	47 43 16.5
B. D.+53° 507	0.85	4	2 14 20.18	4	54 3 3.8	B. D.+41° 530	0.90	4	2 39 12.26	4	42 6 18.9
B. D.+53° 513	0.87	4	2 14 54.63	4	53 47 26.7	B. D.+46° 628	0.87	4	2 39 23.03	4	46 48 42.6
B. D.+54° 530	0.86	4	2 15 44.17	4	+54 37 21.6	B. D.+40° 589	0.90	4	2 39 28.90	4	+40 29 21.9

NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0	NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION. 1900.0	NO. OBS.	DECLINATION 1900.0
	1900+		h m s		° ′ ″		1900+		h m s		° ′ ″
B. D.+50° 627	0.86	4	2 39 29.46	4	+50 11 44.9	B. D.+49° 782	0.88	4	2 42 58.90	4	+49 35 53.7
B. D.+48° 752	0.89	4	2 39 35.54	4	48 56 22.0	B. D.+44° 582	0.90	4	2 43 4.77	4	44 59 17.7
B. D.+39° 628	0.91	4	2 39 37.95	4	40 11 27.4	B. D.+47° 709	0.90	4	2 43 21.29	4	47 43 50.9
B. D.+44° 573	0.87	4	2 39 44.41	4	45 1 45.8	B. D.+43° 583	0.87	4	2 43 26.39	4	43 23 52.6
B. D.+40° 590	0.88	4	2 39 47.55	4	41 2 23.2	B. D.+42° 637	0.86	4	2 43 27.63	4	42 23 3.9
B. D.+51° 626	0.88	4	2 39 53.32	4	51 47 4.1	B. D.+46° 644	0.87 0.92	4	2 43 34.66	3	46 59 53.1
B. D.+43° 574	0.93	5	2 40 0.90	5	43 20 39.3	B. D.+40° 610	0.90	4	2 43 51.61	4	40 24 16.5
B. D.+51° 628	0.88	4	2 40 6.38	4	51 43 41.1	B. D.+47° 711	0.89	4	2 43 53.29	4	47 52 33.6
B. D.+45° 660	0.88	4	2 40 33.96	4	45 29 47.2	B. D.+45° 665	0.86 0.89	5	2 44 0.50	4	45 25 21.4
B. D.+41° 538	0.90	5	2 40 42.66	5	+41 45 19.2	B. D.+40° 612	0.87	4	2 44 5.71	4	+40 52 58.2
B. D.+42° 628	0.90	4	2 40 53.14	4	+42 58 57.3	B. D.+42° 638	0.86	5	2 44 6.27	5	+42 54 1.0
B. D.+43° 576	0.86	4	2 40 58.90	4	43 51 9.7	B. D.+43° 586	0.90	4	2 44 6.83	4	43 56 39.2
B. D.+44° 577	0.88	4	2 41 0.73	4	44 50 45.1	B. D.+41° 550	0.91	4	2 44 7.40	4	41 31 49.4
B. D.+49° 773	0.94 0.89	3	2 41 5.18	4	49 39 33.7	B. D.+45° 667	0.88	4	2 44 9.51	4	45 39 30.7
B. D.+50° 630	0.90	4	2 41 6.04	4	51 7 57.5	B. D.+48° 770	0.89	4	2 44 19.68	4	48 56 9.6
B. D.+47° 698	0.86	4	2 41 20.25	4	47 46 43.8	B. D.+47° 714	0.90	5	2 44 39.98	5	48 5 32.7
B. D.+48° 760	0.89	4	2 41 25.47	4	48 48 6.8	B. D.+45° 669	0.86 0.89	5	2 44 55.72	4	45 34 25.9
B. D.+41° 541	0.94 0.91	5	2 41 26.35	4	41 26 54.2	B. D.+46° 648	0.86	4	2 44 59.93	4	46 25 46.5
B. D.+50° 636	0.86 0.82	4	2 41 35.78	3	50 28 44.4	B. D.+44° 591	0.86	5	2 45 6.78	5	44 38 47.5
B. D.+43° 579	0.90	4	2 41 43.56	4	+43 12 15.0	B. D.+44° 593	0.87	4	2 45 16.87	4	+44 28 54.8
B. D.+47° 700	0.88	4	2 41 43.85	4	+48 2 9.8	B. D.+48° 777	0.86	4	2 45 20.18	4	+48 28 14.6
B. D.+46° 638	0.87	4	2 41 50.69	4	46 32 47.1	B. D.+47° 720	0.89	4	2 45 37.38	4	47 30 4.0
B. D.+48° 762	0.89 0.95	4	2 42 1.38	3	48 45 59.3	B. D.+48° 782	0.87	4	2 45 38.78	4	49 5 23.8
B. D.+40° 602	0.90	4	2 42 4.32	4	40 33 40.2	B. D.+47° 721	0.86	4	2 45 50.98	4	48 0 31.7
B. D.+41° 543	0.91	4	2 42 12.56	4	41 59 48.8	B. D.+43° 593	0.87	4	2 45 52.77	4	43 21 43.3
B. D.+42° 633	0.86	4	2 42 12.86	4	42 18 57.6	B. D.+41° 556	0.91	4	2 45 54.78	4	41 36 33.6
B. D.+47° 702	0.90	5	2 42 19.32	5	47 12 30.7	B. D.+42° 643	0.90	4	2 46 6.26	4	42 21 30.0
B. D.+48° 763	0.89	4	2 42 27.60	4	48 53 4.6	B. D.+46° 652	0.87	4	2 47 16.62	4	46 45 7.5
B. D.+51° 633	0.90	4	2 42 28.18	4	51 13 35.7	B. D.+42° 650	0.89	4	2 48 26.81	4	42 48 21.8
B. D.+46° 641	0.87	4	2 42 28.22	4	+46 48 4.7	B. D.+46° 656	0.87	4	2 48 48.45	4	+46 53 51.7
B. D.+43° 580	0.90	4	2 42 34.73	4	+43 53 52.8	B. D.+45° 679	0.88	4	2 49 15.01	4	+45 26 1.0
B. D.+48° 764	0.86	4	2 42 43.35	4	48 27 49.4	B. D.+44° 598	0.87	4	2 49 28.90	4	+44 34 37.9
B. D.+45° 662	0.87	4	2 42 55.02	4	+45 59 10.8						

RESULTS OF OBSERVATIONS OF EROS.

DATE.		WASHINGTON MEAN TIME.	APPARENT RIGHT ASCENSION.	APPARENT DECLINATION.	LOG $p\Delta$.	DATE.		WASHINGTON MEAN TIME.	APPARENT RIGHT ASCENSION.	APPARENT DECLINATION.	LOG $p\Delta$.
1900		h m s	h m s	° ′ ″		1900		h m s	h m s	° ′ ″	
Oct.	16	12 57 5.85	2 38 15.45	+50 16 19.2	0.2451$_n$	Dec.	10	8 10 53.76	1 28 6.76	+47 7 13.4	0.1080$_n$
	19	12 42 13.98	2 35 10.80	51 9 28.3	0.2767$_n$		11	8 7 36.27	1 28 45.29	46 43 45.5	0.0874$_n$
	20	12 37 7.50	2 34 0.03	51 26 8.6	0.2862$_n$		12	8 4 25.11	1 29 30.16	46 19 58.1	0.0654$_n$
	21	12 31 56.77	2 32 45.01	51 42 15.2	0.2951$_n$		13	8 1 19.86	1 30 20.96	45 55 54.9	0.0421$_n$
	24	12 15 58.59	2 28 33.86	52 26 51.4	0.3189$_n$		14	7 58 20.78	1 31 17.95	45 31 37.2	0.0171$_n$
	26	12 4 59.44	2 25 26.01	+52 53 8.3	0.3323$_n$		19	7 44 54.69	1 37 32.44	+43 27 18.2	9.8597$_n$
	27	11 59 24.15	2 23 46.36	+53 5 9.8	0.3382$_n$		21	7 40 11.83	1 40 41.92	+42 36 36.6	9.7743$_n$
	29	11 48 3.35	2 20 16.81	53 26 50.7	0.3488$_n$		26	7 29 56.32	1 50 7.51	40 28 27.0	9.4271$_n$
Nov.	4	11 12 47.02	2 8 34.00	54 10 59.1	0.3695$_n$		28	7 26 23.91	1 54 27.64	39 36 54.5	9.1327$_n$
	5	11 6 58.63	2 6 42.22	54 15 5.2	0.3714$_n$	1901					
	9	10 43 5.18	1 58 30.06	+54 21 28.5	0.3743$_n$	Jan.	1	7 20 11.29	2 4 0.23	+37 53 46.0	9.1074
	12	10 25 14.84	1 52 26.45	+54 15 35.9	0.3716$_n$		2	7 18 48.14	2 6 33.41	+37 27 58.9	9.2878
	21	9 34 7.37	1 36 39.46	53 3 30.1	0.3375$_n$		4	7 16 12.82	2 11 50.78	36 36 25.8	9.5127
	27	9 3 38.57	1 29 44.99	51 34 56.8	0.2911$_n$		8	7 11 42.99	2 23 6.44	34 53 32.6	9.7696
	30	8 49 48.58	1 27 42.39	50 40 55.1	0.2601$_n$		16	7 5 1.82	2 47 56.63	31 29 3.7	0.0448
Dec.	5	8 28 57.89	1 26 31.07	48 58 27.7	0.1939$_n$		18	7 3 45.73	2 54 33.44	30 38 22.8	0.0924
	6	8 25 8.56	1 26 37.67	+48 37 52.2	0.1793$_n$		22	7 1 37.90	3 8 11.48	+28 57 39.6	0.1736

PART III.

OBSERVATIONS
OF
495 ZODIACAL STARS
WITH THE
NINE-INCH TRANSIT CIRCLE.
1900.

BY

W. S. EICHELBERGER,

ASSISTED BY

GEORGE K. LAWTON AND JOHN C. HAMMOND.

O1

INTRODUCTION.

By W. S. EICHELBERGER.

On September 12, 1900, Prof. W. S. EICHELBERGER, U. S. Navy, was detailed by the Astronomical Director to observe with the 9-inch transit circle the catalogue of 2,798 zodiacal stars, selected and compiled under the direction of Dr. DAVID GILL. Work was commenced on September 18 and continued until November 7, when a careful investigation of the pivots showed them to be in such an unsatisfactory condition that, in consideration of this fact, together with the long-known unsymmetrical illumination of the field, permission was given to discontinue the work until these instrumental defects could be remedied. As it was thought undesirable to combine this work with that to be done on the remodeled instrument, it was decided to publish these results at once.

A full description of the 9-inch transit circle and of the method of observing is given in the Publications of the United States Naval Observatory, Second Series, Volumes I and II.

Two or three sets of instrumental constants were determined each night, and in general these sets agreed sufficiently to justify adopting the mean for reducing the night's work.

The level constant was determined by means of a hanging spirit level.

The azimuth constant was determined by means of the north meridian mark.

The collimation constant was determined by means of horizontal collimators.

The standard sidereal clock is the Howard, No. 404, and is used in circuit with a chronograph. The rate of the clock during the period of observation was not as uniform as it has been since.

All transits and micrometer bisections were taken by Professor EICHELBERGER. The telescope was set, the circle microscopes read, and the record kept by Computers GEORGE K. LAWTON and JOHN C. HAMMOND.

STANDARD STARS.

The observations in right ascension and declination are strictly differential, the positions of the thirty-three zero stars being taken from NEWCOMB'S Catalogue of Fundamental Stars, Volume VIII, Part II, Astronomical Papers of the American Ephemeris. The apparent places of the following fifteen stars were taken from the Berliner Jahrbuch, the Nautical Almanac, or the Connaissance de Temps, as indicated below, the accompanying corrections being used to reduce their positions to NEWCOMB'S system.

Name.	Ephemeris.	Corrections.	
		Δα	Δδ
		s	″
h Sagittarii..........	B. J.	+0. 070	+0. 25
β Capricorni.........	N. A.	+0. 092	+0. 19
ρ Capricorni.........	N. A.	+0. 036	+0. 40
υ Capricorni.........	B. J.	+0. 022	+0. 27
ε Aquarii............	B. J.	+0. 049	+0. 63
θ Capricorni.........	N. A.	+0. 030	+0. 47
ν Aquarii............	B. J.	+0. 017	+0. 68
ι Capricorni.........	N. A.	+0. 076	+0. 68
γ Capricorni.........	C. T.	+0. 029	—0. 04
δ Capricorni.........	B. J.	+0. 019	+0. 63
ι Aquarii............	B. J.	+0. 049	+0. 26
γ Piscium	N. A.	+0. 062	+0. 59
κ Piscium	B. J.	+0. 059	+0. 59
27 Piscium	N. A.	+0. 038	—0. 33
30 Piscium	C. T.	+0. 100	+0. 17

The apparent places of the remaining eighteen were either taken directly from the American Ephemeris or computed by aid of the independent star-numbers there given. No attempt has been made to deduce new positions for these stars.

PERSONAL EQUATION DEPENDING ON MAGNITUDE.

On four nights observations were made to determine the observer's personal equation depending upon the magnitude of the star. A wire screen was attached to the object-glass end of the telescope, and by means of a rod running along the tube to the eye-end, the observer could place the screen over the object-glass and remove it at will. Each star was observed over twenty-one right ascension threads. If it was observed over the sets b, c and d with the objective unscreened, the objective was screened during its transit over sets a and e, and the next star was observed over sets a and e with the objective unscreened, the screen being used during the passage over sets b, c and d. The method of observing was thus changed with alternate stars throughout the night.

The results for the time of transit of the screened star reduced to the mean of the sets b, c and d minus the time of transit of the unscreened star reduced to the same mean thread are as follows:

Date.	Number of Stars.	Difference.	Clamp.
1901		s	
Oct. 30	37	+0. 015	West.
Nov. 9	45	0. 022	"
16	50	0. 025	East.
17	39	+0. 012	"
Mean.....	82	+0. 019	West.
	89	+0. 019	East.
Mean.....	171	+0. 019	

The estimated decrease in magnitude produced by the screen is 2.55. No correction for personal equation depending upon the magnitude has been applied to the observations.

PROBABLE ERROR OF A SINGLE OBSERVATION.

These observations were made with the instrument clamp west, so that there is no means of determining from the observations themselves whether they need such a correction as is applied by Mr. KING to his Eros stars, see page B III of the present volume.

The probable error of a single mean right ascension is $0^s.025 \sec\delta$.

The probable error of a single mean declination is $0''.20$.

TABLES.

At the end of this introduction may be found the following tables:

TABLE I.—The equatorial thread intervals.

TABLE II.—The adopted values of the readings of the zenith distance micrometer. A careful investigation of the micrometer screw used on September 18 and 19 showed that it was necessary to use a variable value for its revolution. A new screw was used commencing September 22.

TABLE III.—The correction for inclination and distance of the zenith distance threads. All bisections with the zenith distance micrometer were made between the double threads unless otherwise stated at the bottom of the page of the printed observations. For the zenith distance threads A, B and C the table gives the reduction to the double threads, combined with the correction for the inclination of the double threads.

TABLE IV.—The reduction to the meridian. The quantities in this table have been arbitrarily increased by 5″, which necessarily appears in the values of the equator point.

TABLE V.—The adopted azimuth of the north meridian mark. The position of the mark was determined as a part of the regular Sun, Moon and Planet work, from observations of circumpolar stars two or three times a week, and the means taken by groups as indicated in the table.

TABLE VI.—The adopted values of n and c. BESSEL'S formula for reducing right ascensions,

$$\alpha = T + \Delta T + m + n \tan \delta + c \sec \delta$$

has been used. The collimation constant contains the correction for daily aberration. When two or more values of n are given for the same day, its value for each star was determined by interpolation.

EXPLANATION OF THE PRINTED OBSERVATIONS, PP. C 3–C 25.

The first column gives the number on the page for convenience of reference.

The second column gives the name of the star. When a miscellaneous star is north of declination −23°, the Bonn Durchmusterung number is given; when south of declination −23°, the Cape Photographic Durchmusterung number is given.

The third column gives the number of threads over which transits were taken.

The fourth column gives the mean of the times of transit over the threads observed, reduced to the position of the mean of the eleven threads of sets b, c and d.

The fifth column gives for each star the portion of the instrumental correction depending on its declination in BESSEL'S formula for reducing transit observations

$$m + n \tan \delta + c \sec \delta.$$

The sixth column gives the clock correction plus that portion of the instrumental correction independent of the star's declination. The quantities in this column in heavy-face type are observed values derived from the zero stars. For each night's work the simplest curve that most nearly satisfied these observed quantities was plotted on square-ruled paper, and from this curve was read off for each miscellaneous star the quantity in light-face type.

The seventh column gives for each zero star the hour and minute of its right ascension, and for each miscellaneous star the sum of the quantities contained in the fourth, fifth and sixth columns.

The eighth column gives for each miscellaneous star the correction necessary to reduce the apparent to the mean right ascension for 1900.0, given on pp. C 27–C 43.

The ninth column gives the circle reading, the seconds being the mean of the readings of four microscopes.

The tenth column gives, unless otherwise noted at the bottom of the page, the mean of the readings of the zenith distance micrometer for the bisections at threads I, II, VI and VII. Parentheses inclose matter which has been supplied as not existing in the original record, or is the result of change from the original record.

The eleventh column gives the correction for refraction computed from COFFIN'S modification of BESSEL'S refraction tables, re-edited by Prof. J. R. EASTMAN, U. S. Navy, and published in 1887. The meteorological record will be found at the lower left-hand corner of each page.

The twelfth column gives in heavy-face type the seconds of the equator point derived from the observations of each zero star. The degrees and minutes are 321° 5′. The method of obtaining the adopted equator points for the miscellaneous stars is the same as that used for the clock corrections.

The thirteenth column gives for each miscellaneous star, the sum of the following six quantities; those contained in the ninth, eleventh, and twelfth columns, that in the tenth column transformed into arc by means of TABLE II, the reduction to meridian from TABLE IV, and the correction for inclination and distance from TABLE III.

The fourteenth column gives for each miscellaneous star the correction necessary to reduce the apparent to the mean declination for 1900.0, given on pages C 27–C 43.

TABLE I.—*The Equatorial Thread Intervals.*

Vertical Thread.	Reduction to Mean of b, c and d.
	s
I	+ 37.090
II	24.714
III b_1	12.389
b_2	9.727
b_3	8.227
c_1	4.163
c_2	2.090
IV c_3	+ 0.032
c_4	− 2.119
c_5	4.143
d_1	8.237
d_2	9.775
V d_3	12.356
VI	24.682
VII	−37.046

TABLE II.—*The Adopted Values of the Readings of the Zenith Distance Micrometer.*

	September 18 and 19, 1900.									
Revs.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
30	0 0.00	0 1.92	0 3.83	0 5.75	0 7.67	0 9.58	0 11.50	0 13.41	0 15.33	0 17.25
31	0 19.16	0 21.08	0 22.99	0 24.91	0 26.82	0 28.73	0 30.65	0 32.56	0 34.48	0 36.39
32	0 38.31	0 40.22	0 42.13	0 44.05	0 45.96	0 47.87	0 49.78	0 51.70	0 53.61	0 55.52
33	0 57.43	0 59.34	1 1.25	1 3.16	1 5.07	1 6.98	1 8.89	1 10.80	1 12.71	1 14.62
34	1 16.53	1 18.44	1 20.35	1 22.26	1 24.17	1 26.08	1 27.99	1 29.89	1 31.80	1 33.71
35	1 35.62	1 37.52	1 39.43	1 41.34	1 43.24	1 45.15	1 47.06	1 48.96	1 50.87	1 52.78
36	1 54.68	1 56.59	1 58.49	2 0.40	2 2.30	2 4.20	2 6.11	2 8.01	2 9.92	2 11.82
37	2 13.72	2 15.62	2 17.53	2 19.43	2 21.33	2 23.23	2 25.13	2 27.04	2 28.94	2 30.84
38	2 32.74	2 34.64	2 36.54	2 38.44	2 40.34	2 42.24	2 44.14	2 46.04	2 47.94	2 49.84
39	2 51.73	2 53.63	2 55.53	2 57.43	2 59.33	3 1.23	3 3.12	3 5.02	3 6.92	3 8.82
40	3 10.72	3 12.61	3 14.51	3 16.41	3 18.31	3 20.20	3 22.10	3 24.00	3 25.90	3 27.80
41	3 29.70	3 31.59	3 33.49	3 35.39	3 37.29	3 39.19	3 41.09	3 42.99	3 44.89	3 46.79
42	3 48.70	3 50.60	3 52.50	3 54.40	3 56.31	3 58.21	4 0.12	4 2.02	4 3.93	4 5.83
43	4 7.74	4 9.64	4 11.55	4 13.46	4 15.37	4 17.28	4 19.19	4 21.10	4 23.01	4 24.92
44	4 26.84	4 28.75	4 30.66	4 32.58	4 34.49	4 36.41	4 38.33	4 40.24	4 42.16	4 44.08
45	4 46.00	4 47.91	4 49.83	4 51.75	4 53.67	4 55.59	4 57.52	4 59.44	5 1.36	5 3.28
46	5 5.20	5 7.13	5 9.05	5 10.98	5 12.90	5 14.82	5 16.75	5 18.68	5 20.60	5 22.53
47	5 24.45	5 26.38	5 28.31	5 30.24	5 32.16	5 34.09	5 36.02	5 37.95	5 39.88	5 41.81
48	5 43.74	5 45.67	5 47.60	5 49.53	5 51.47	5 53.40	5 55.33	5 57.26	5 59.19	6 1.13
49	6 3.06	6 4.99	6 6.93	6 8.86	6 10.79	6 12.73	6 14.66	6 16.60	6 18.53	6 20.47
50	6 22.40	6 24.34	6 26.27	6 28.20	6 30.14	6 32.07	6 34.01	6 35.94	6 37.87	6 39.81
51	6 41.74	6 43.67	6 45.60	6 47.54	6 49.47	6 51.40	6 53.33	6 55.26	6 57.20	6 59.13
52	7 1.06	7 2.99	7 4.92	7 6.85	7 8.78	7 10.71	7 12.64	7 14.57	7 16.50	7 18.42
53	7 20.35	7 22.28	7 24.21	7 26.14	7 28.07	7 29.99	7 31.92	7 33.85	7 35.77	7 37.70
54	7 39.63	7 41.55	7 43.48	7 45.40	7 47.33	7 49.26	7 51.18	7 53.10	7 55.03	7 56.95
55	7 58.88	8 0.80	8 2.73	8 4.65	8 6.57	8 8.50	8 10.42	8 12.34	8 14.26	8 16.18
56	8 18.11	8 20.03	8 21.95	8 23.87	8 25.79	8 27.71	8 29.63	8 3[illegible].55	8 33.47	8 35.39
57	8 37.31	8 39.23	8 41.15	8 43.07	8 44.99	8 46.90	8 48.82	8 50.74	8 52.66	8 54.58
58	8 56.50	8 58.42	9 0.33	9 2.25	9 4.17	9 6.09	9 8.00	9 9.92	9 11.83	9 13.75
59	9 15.66	9 17.58	9 19.49	9 21.41	9 23.32	9 25.24	9 27.15	9 29.06	9 30.98	9 32.89

TABLE II.—*The Adopted Values of the Readings of the Zenith Distance Micrometer*—Continued.

September 22 to November 6, 1900.							
	3′	4′	5′		3′	4′	5′
″	r	r	r	″	r	r	r
0	39.386	42.514	45.643	30	40.950	44.078	47.207
1	39.438	42.566	45.695	31	41.002	44.131	47.259
2	39.490	42.618	45.747	32	41.054	44.183	47.311
3	39.542	42.671	45.799	33	41.106	44.235	47.363
4	39.594	42.723	45.851	34	41.158	44.287	47.416
5	39.646	42.775	45.903	35	41.211	44.339	47.468
6	39.699	42.827	45.956	36	41.263	44.391	47.520
7	39.751	42.879	46.008	37	41.315	44.443	47.572
8	39.803	42.931	46.060	38	41.367	44.496	47.624
9	39.855	42.983	46.112	39	41.419	44.548	47.676
10	39.907	43.036	46.164	40	41.471	44.600	47.728
11	39.959	43.088	46.216	41	41.523	44.652	47.781
12	40.011	43.140	46.268	42	41.576	44.704	47.833
13	40.064	43.192	46.321	43	41.628	44.756	47.885
14	40.116	43.244	46.373	44	41.680	44.808	47.937
15	40.168	43.296	46.425	45	41.732	44.861	47.989
16	40.220	43.348	46.477	46	41.784	44.913	48.041
17	40.272	43.401	46.529	47	41.836	44.965	48.093
18	40.324	43.453	46.581	48	41.888	45.017	48.146
19	40.376	43.505	46.633	49	41.941	45.069	48.198
20	40.428	43.557	46.686	50	41.993	45.121	48.250
21	40.481	43.609	46.738	51	42.045	45.173	48.302
22	40.533	43.661	46.790	52	42.097	45.226	48.354
23	40.585	43.713	46.842	53	42.149	45.278	48.406
24	40.637	43.766	46.894	54	42.201	45.330	48.458
25	40.689	43.818	46.946	55	42.253	45.382	48.511
26	40.741	43.870	46.998	56	42.306	45.434	48.563
27	40.793	43.922	47.051	57	42.358	45.486	48.615
28	40.846	43.974	47.103	58	42.410	45.538	48.667
29	40.898	44.026	47.155	59	42.462	45.591	48.719

TABLE III.—*Inclination and Distance of Zenith Distance Threads.*

Vertical Thread.	Correction for Double Threads.	Correction for Thread A.	Correction for Thread B.	Correction for Thread C.	Vertical Thread.	Correction for Double Threads.	Correction for Thread A.	Correction for Thread B.	Correction for Thread C.
September 18 and 19, 1900.					September 22 to November 6, 1900.				
	″	′ ″	′ ″	′ ″		″	′ ″	′ ″	′ ″
I	+2.26	+3 17.33	−3 10.50	−6 23.73	I	+1.97	+3 16.90	−3 10.87	−6 24.32
II	1.51	16.49	11.38	24.37	II	1.31	16.19	11.61	24.86
III	+0.75	15.65	12.26	25.01	III	+0.66	15.48	12.35	25.40
IV	0.00	14.81	13.14	25.64	IV	0.00	14.76	13.10	25.94
V	−0.75	13.97	14.02	26.27	V	−0.66	14.04	13.84	26.48
VI	1.51	13.13	14.90	26.91	VI	1.31	13.33	14.58	27.01
VII	−2.26	+3 12.29	−3 15.78	−6 27.54	VII	−1.97	+3 12.61	−3 15.32	−6 27.55

TABLE IV.—*Reduction to Meridian.*

Z. D. N.	I VII.	II VI.	Z. D. N.	I VII.	II VI.
°	"	"	°	"	"
330	4.88	4.95	311	5.13	5.06
329	4.90	4.95	310	5.14	5.06
328	4.91	4.96	309	5.16	5.07
327	4.92	4.97	308	5.17	5.08
326	4.93	4.97	307	5.19	5.08
325	4.95	4.98	306	5.20	5.09
324	4.96	4.98	305	5.21	5.09
323	4.98	4.99	304	5.23	5.10
322	4.99	4.99	303	5.24	5.11
321	5.00	5.00	302	5.25	5.11
320	5.01	5.01	301	5.27	5.12
319	5.02	5.01	300	5.28	5.13
318	5.04	5.02	299	5.30	5.13
317	5.05	5.02	298	5.32	5.14
316	5.07	5.03	297	5.33	5.15
315	5.08	5.03	296	5.35	5.16
314	5.09	5.04	295	5.36	5.16
313	5.10	5.05	294	5.38	5.17
312	5.12	5.05	293	5.40	5.17

TABLE V.—*The Adopted Azimuth of the North Meridian Mark.*

[Positive when mark is west of north.]

1900	s
August 8 to October 20	—0.835
October 21 to December 6	—0.856

TABLE VI.—*The Adopted Values of n and c.*

Date.		Sidereal Hour.	*n.*	*c.*	Date.		Sidereal Hour.	*n.*	*c.*
1900		h h	s	s	1900		h h	s	s
September	18	19.5–23.4	—0.135	—0.032	October	16	0.5 ...	—0.022	.....
	19	19.5–23.4	0.078	0.038		17	19.5– 0.0	0.044	—0.037
	22	19.5–21.6	0.148	0.003		18	19.5–23.4	0.063	0.048
	24	19.5–21.1	0.093	0.003		19	19.5– 0.0	0.031	0.064
	26	20.0–23.2	0.134	0.000		20	19.5– 0.0	0.031	0.046
October	6	19.5– 0.0	0.141	0.011		22	19.5–22.8	0.109	0.031
	9	22.0– 0.0	.....	0.024		24	19.6– 0.0	0.133	0.014
	9	21.8 ...	0.148	.....		26	19.5– 0.0	0.089	0.027
	9	0.5 ...	—0.084	.....		27	19.5– 0.0	.....	0.044
	10	22.4– 0.0	+0.032	0.037		27	19.7 ...	0.056	.....
	11	19.6– 0.0	.....	—0.022		27	22.0 ...	0.078	.....
	11	19.3 ...	—0.116	.....		27	1.1 ...	0.125	.....
	11	21.5 ...	0.079	.....		29	19.6– 0.0	0.061	0.020
	11	0.5 ...	0.061	.....	November	2	20.1–23.4	0.109	0.027
	15	19.6– 0.0	0.070	+0.004		5	20.1– 0.0	.....	0.028
	16	19.5– 0.0	.....	+0.007		5	20.0 ...	0.096	.....
	16	19.0 ...	0.077	.....		5	0.5 ...	0.044	.....
	16	22.8 ...	—0.056	.....		6	20.1–23.4	—0.064	—0.038

NINE-INCH TRANSIT CIRCLE.

OBSERVATIONS AND REDUCTIONS.

1900 SEPTEMBER 18. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c \sec \delta + n \tan \delta$	$\Delta T+m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	*h* Sagittarii	11	30 53.71	+0.03	**−12.03**	19 30	......	295 56 7.32	46.471	1 55.4	**35.9**	25 6	......
2	*f* Sagittarii	11	40 48.01	0.02	**12.01**	19 40	......	301 2 7.40	45.970	1 33.6	**35.3**	19 59	......
3	B. D. −15° 5564	11	3 6.91	0.00	11.99	20 2 54.92	−4.23	305 44 7.22	42.276	1 18.5	36.2	15 18 48.4	−17.2
4	B. D. −15° 5576	11	5 55.28	0.00	11.99	20 5 43.29	4.25	305 14 7.50	47.230	1 19.9	36.2	15 47 14.6	17.3
5	B. D. 17° 5913	11	9 48.00	0.01	11.99	20 9 36.02	−4.30	303 54 7.12	42.105	1 24.1	36.3	17 8 57.4	−17.2
6	4 Capricorni......	11	12 25.33	+0.02	**12.00**	20 12	......	298 56 6.62	43.372	1 42.0	**36.5**	−22 6	......
7	B. D. −15° 5626	11	15 25.77	0.00	−11.98	20 15 13.79	−4.27	305 56 6.98	45.719	1 18.0	36.4	15 5 42.5	−18.3
8	B. D. −19° 5809	11	19 34.49	+0.01	11.98	20 19 22.52	4.39	301 18 6.90	41.944	1 32.9	36.5	19 45 9.7	17.2
9	C. P. D. −24° 6997	11	23 5.13	0.03	11.97	20 22 53.19	4.52	296 44 6.72	45.025	1 52.0	36.6	24 18 30.2	16.3
10	B. D. −17° 6007	11	25 56.11	0.01	11.97	20 25 44.15	4.36	303 34 7.65	44.586	1 25.2	36.6	17 28 10.9	18.5
11	B. D. −18° 5714	11	29 59.31	0.01	11.96	20 29 47.36	4.38	302 54 7.10	46.726	1 27.4	36.7	18 7 32.7	18.6
12	B. D. −20° 5995	11	34 4.76	+0.02	−11.96	20 33 52.82	−4.44	301 0 7.10	48.494	1 34.0	36.7	−20 1 5.1	−18.4
13	B. D. 19° 5905	11	38 28.18	+0.01	−11.96	20 38 16.23	−4.44	301 20 7.22	46.077	1 32.9	36.8	−19 41 51.4	−18.9
14	C. P. D. −24° 7074	10	40 41.03	0.02	11.95	20 40 29.10	4.56	296 58 6.88	43.487	1 51.0	36.8	24 4 59.4	17.9
15	B. D. −18° 5783	11	43 56.64	0.01	11.95	20 43 44.70	4.43	302 38 6.78	45.488	1 28.3	36.9	18 23 57.9	19.6
16	B. D. −21° 5852	11	46 52.04	0.02	11.95	20 46 40.11	4.51	299 26 6.98	45.736	1 40.2	36.9	21 36 4.8	19.0
17	C. P. D. −23° 7879	11	49 31.84	0.02	11.94	20 49 19.92	4.56	297 48 7.18	47.618	1 47.1	36.9	23 13 35.2	18.8
18	B. D. −20° 6090	11	53 57.11	+0.02	−11.94	20 53 45.19	−4.51	300 12 7.15	47.112	1 37.1	37.0	−20 49 35.1	−19.8
19	B. D. −16° 5769	11	57 16.95	0.00	−11.93	20 57 5.02	−4.40	305 10 7.20	46.195	1 20.4	37.0	−15 51 36.1	−21.3
20	B. D. −21° 5933	11	3 6.52	+0.02	11.93	21 2 54.61	4.54	299 26	......	......	....	21 35	......
21	B. D. −18° 5875	11	5 10.85	0.01	11.93	21 4 58.93	4.48	302 18 7.42	45.714	1 29.6	37.1	18 43 54.4	21.2
22	B. D. −17° 6216	11	9 47.43	0.01	11.92	21 9 35.52	4.49	303 16 7.58	47.818	1 26.4	37.1	17 45 10.5	21.5
23	B. D. −18° 5903	11	12 37.22	+0.01	11.92	21 12 25.31	4.49	302 38 7.35	45.712	1 28.5	37.1	18 23 53.4	21.8
24	B. D. −11° 5578	11	15 40.13	0.00	−11.91	21 15 28.22	−4.37	309 14 7.70	(50)574	1 9.5	37.1	−11 46 0.3	23.3
25	B. D. −9° 5728	11	17 50.91	−0.01	−11.91	21 17 38.99	−4.34	311 16 8.10	49.282	1 4.7	37.2	−9 44 20.2	−24.0
26	B. D. −18° 5935	11	20 57.72	+0.01	11.91	21 20 45.82	4.50	302 28 7.58	43.830	1 29.2	37.2	18 34 30.1	22.3
27	B. D. −22° 5692	11	23 17.87	+0.02	11.91	21 23 5.98	4.58	298 48 7.00	45.508	1 43.1	37.2	22 14 12.3	21.6
28	*β* Aquarii	11	26 33.86	−0.02	**11.83**	21 26	......	315 0 8.58	49.095	56.8	**36.9**	6 0	......
29	B. D −20° 6251	11	31 45.44	+0.02	11.90	21 31 33.56	4.55	301 8 7.25	44.176	1 33.9	37.2	19 54 28.5	22.7
30	B. D. −22° 5735	11	33 46.04	+0.02	−11.89	21 33 34.17	−4.59	298 52 7.78	47.631	1 42.8	37.2	−22 9 30.4	22.4
31	B. D. −19° 6152	11	37 21.00	+0.01	−11.89	21 37 9.12	−4.54	301 44 7.65	42.590	1 31.8	37.2	−19 18 56.2	−23.2
32	B. D. −10° 5755	11	39 47.45	−0.01	11.89	21 39 35.55	4.40	310 22 8.08	44.452	1 6.9	37.2	10 39 55.4	25.1
33	B. D. −18° 6013	11	42 28.86	+0.01	11.88	21 42 16.99	4.53	302 22 7.98	44.859	1 29.6	37.2	18 40 10.4	23.7
34	B. D. −17° 6389	11	44 59.47	+0.01	11.88	21 44 47.60	4.51	303 44 8.12	44.328	1 25.1	37.2	17 18 15.9	24.1
35	*μ* Capricorni......	11	48 7.10	0.00	**11.94**	21 47	......	307 2 8.32	41.712	1 15.4	**37.9**	14 0	......
36	B. D. −10° 5795	11	51 21.58	−0.01	−11.88	21 51 9.69	−4.41	310 58 8.42	46.619	1 5.5	37.2	−10 3 12.1	−25.8
37	B. D. −6° 5878	11	53 15.05	−0.02	−11.88	21 53 3.15	4.36	315 8 8.60	45.199	56.7	37.2	−5 53 30.4	−26.6
38	B. D. −10° 5812	11	56 47.29	0.01	11.87	21 56 35.41	4.42	310 40 8.28	47.470	1 6.2	37.2	10 20 56.5	26.0
39	B. D. −9° 5908	11	59 29.98	−0.01	11.87	21 59 18.10	4.41	311 50 8.08	45.398	1 3.6	37.2	9 11 34.0	26.3
40	B. D. −17° 6451	11	3 15.75	+0.01	11.86	22 3 3.90	4.52	304 0 8.32	46.568	1 24.3	37.2	17 1 31.9	25.2
41	B. D. −4° 5625	11	5 37.24	−0.02	11.86	22 5 25.36	4.37	316 16 8.50	46.470	54.5	37.2	4 45 3.9	27.3
42	B. D. −13° 6130	11	7 55.36	0.00	−11.86	22 7 43.50	−4.47	307 30 8.30	48.664	1 14.1	37.2	−13 30 41.3	−26.0
43	B. D. −9° 5948	11	11 52.15	−0.01	−11.85	22 11 40.29	−4.43	311 30 8.55	44.460	1 4.4	37.2	−9 31 52.3	−26.8
44	B. D. −4° 5655	11	14 53.75	0.02	11.85	22 14 41.88	4.38	316 28 8.72	44.785	54.2	37.2	4 33 35.8	27.6
45	B. D. −11° 5817	11	17 9.69	−0.01	11.85	22 16 57.83	4.46	309 40 8.58	48.438	1 8.6	37.2	11 20 39.9	26.8
46	B. D. −18° 6114	11	19 24.90	+0.01	11.85	22 19 13.06	4.54	302 56 8.48	46.706	1 27.8	37.2	18 5 32.6	25.8
47	B. D. −6° 5996	11	22 54.71	−0.02	11.84	22 22 42.85	4.41	314 36 7.92	48.518	57.8	37.2	6 24 28.3	27.6
48	B. D. −8° 5888^{2}	11	25 33.77	−0.01	−11.84	22 25 21.92	−4.43	312 24 8.92	46.552	1 2.4	37.2	−8 37 9.8	−27.4
49	B. D. −12° 6315	11	32 4.42	0.00	−11.83	22 31 52.59	4.47	308 46 8.98	49.116	1 10.9	37.2	−12 14 28.7	−27.2
50	B. D. −12° 6327	11	36 24.29	0.00	11.83	22 36 12.46	4.48	308 16 8.70	48.618	1 12.2	37.1	12 44 39.8	27.3
51	B. D. −15° 6265	11	39 18.45	0.00	11.82	22 39 6.63	4.51	305 50 8.80	46.069	1 18.9	37.1	15 11 35.5	27.1
52	B. D. 2° 5826	11	42 37.15	−0.03	11.82	22 42 25.30	4.41	318 42 9.25	48.015	50.1	37.1	2 18 28.9	28.6
53	B. D. −1° 4351	11	45 50.74	0.03	11.82	22 45 38.89	4.40	319 56 9.10	43.196	48.0	37.1	1 5 59.5	28.7
54	B. D. 1° 4355	11	49 25.94	0.03	11.82	22 49 14.09	4.41	319 26 9.02	48.429	48.8	37.1	1 34 19.8	28.8
55	B. D. −5° 5894	11	52 22.90	−0.02	−11.81	22 52 11.07	4.43	315 40 8.45	49.205	55.7	37.0	−5 20 12.2	28.5

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
18 19 28	29.94	64.0	63.6
20 35	29.96	62.5	61.8
21 27	29.97	61.5	60.0
22 27	29.98	60.0	58.9

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

13, 14. Bisections at II, VI, VII.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT+m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READ-ING.	REFR.	EQUA-TOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −9° 6100	11	55 22.94	0.01	−11.81	22 55 11.12	−4.46	311 36 8.58	48.724	1 4.2	37.0	9 24 29.8	−28.2
2	B. D. −12° 6404	11	57 34.21	0.00	11.80	22 57 22.41	−4.47	309 14 8.45	45.170	1 9.8	37.0	11 47 44.0	−28.1
3	φ Aquarii	11	9 24.88	0.02	**11.81**	23 9	....	314 26 7.78	47.471	58.2	**37.0**	−6 34	....
4	γ Piscium	11	12 15.10	0.04	**11.75**	23 12	....	323 46 9.12	44.840	41.8	**36.9**	+ 2 44	....
5	κ Piscium	11	22 4.62	−0.03	**−11.80**	23 21	....	321 44 8.60	46.050	45.0	**36 4**	+ 0 42	....

1900 SEPTEMBER 19. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT+m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READ-ING.	REFR.	EQUA-TOR POINT.	APPARENT DECL.	RED. TO 1900.0
6	h Sagittarii	11	30 53.88	0.00	**−12.19**	19 30	....	295 56 7.42	46.564	1 56.9	**36.8**	−25 6	....
7	f Sagittarii	11	40 48.17	−0.01	**12.15**	19 40	....	301 2 7.82	46.064	1 34.8	**36.8**	19 59	....
8	B. D. −19° 5721	11	2 42.84	0.01	12.16	20 2 30.67	−4.31	301 56 7.45	47.620	1 31.6	36.7	19 5 19.3	16.0
9	B. D. −22° 5354	11	5 47.94	0.01	12.16	20 5 35.77	4.41	298 48 7.30	44.321	1 43.8	36.7	22 14 35.0	15.3
10	B. D. −19° 5753	11	9 12.55	0.01	12.16	20 9 0.38	4.34	301 32 7.08	44.546	1 33.1	36.8	19 30 20.3	16.4
11	B. D. −15° 5606	11	11 24.30	−0.02	−12.16	20 11 12.12	−4.25	305 34 7.80	41.696	1 20.0	36.8	−15 29 1.0	−17.8
12	β Capricorni......	11	15 40.04	−0.02	**−12.18**	20 15	....	305 56 8.00	46.288	1 18.9	**36.7**	−15 5	....
13	B. D. −13° 5661	11	18 49.24	0.02	12.16	20 18 37.06	−4.24	307 18 8.10	48.378	1 15.1	37.0	13 42 47.8	18.9
14	B. D. −21° 5719	11	21 18.86	0.01	12.15	20 21 6.70	4.42	299 52 6.60	42.460	1 39.3	37.0	21 7 52.3	17.0
15	B. D. −21° 5729	11	23 28.16	0.01	12.15	20 23 16.00	4.43	299 52 6.78	44.492	1 39.7	37.0	21 13 41.6	17.2
16	C. P. D. −25° 7104	11	27 11.92	0.00	12.15	20 26 59.77	4.55	295 46 6.95	45.009	1 58.2	37.1	25 16 36.9	16.3
17	B. D. −17° 6027	11	30 9.34	−0.02	−12.15	20 29 57.17	−4.34	304 10 7.82	45.641	1 24.3	37.1	−16 51 50.1	18.9
18	B. D. −15° 5743	11	33 57.35	−0.02	−12.15	20 33 45.18	−4.32	305 44 7.95	44.874	1 19.6	37.2	15 18 0.1	19.7
19	B. D. −13° 5736	11	37 23.15	0.02	12.15	20 37 10.98	4.29	307 34 8.22	(49)126	1 14.4	37.2	13 26 32.8	20.4
20	B. D. −22° 5523	11	40 38.85	0.01	12.15	20 40 26.69	4.49	299 10 6.52	45.039	1 42.4	37.3	21 52 21.2	18.4
21	B. D. −21° 5840	10	43 44.98	0.01	12.15	20 43 32.82	4.48	300 2 7.10	47.764	1 38.8	37.3	20 59 24.6	18.9
22	B. D. −20° 6055	11	46 49.65	0.01	12.15	20 46 37.49	4.46	301 2 7.28	43.266	1 35.1	37.3	20 0 47.1	19.4
23	B. D. 18° 5805	11	49 25.48	−0.01	−12.15	20 49 13.32	−4.43	302 44 7.78	46.000	1 29.0	37.4	−18 17 48.2	−20.0
24	B. D. −12° 5876	11	52 50.34	−0.02	−12.15	20 52 38.17	−4.31	308 42 8.52	44.280	1 11.5	37.4	−12 20 3.1	−21.8
25	B. D. −18° 5831	11	55 30.72	0.02	12.15	20 55 18.55	4.44	303 8 7.68	42.460	1 27.7	37.4	17 54 54.8	20.6
26	B. D. −10° 5578	11	57 27.45	0.02	12.15	20 57 15.28	4.29	310 38 7.65	47.360	1 6.7	37.4	10 23 0.0	22.6
27	B. D. −13° 5857	11	3 3.13	0.02	12.15	21 2 50.96	4.36	307 44 8.38	48.796	1 14.0	37.5	13 16 38.9	22.3
28	B. D. −10° 5619	11	5 36.63	0.02	12.15	21 5 24.46	4.32	310 24 7.92	48.594	1 7.3	37.5	10 36 36.6	23.1
29	B. D. −13° 5881	11	8 56.26	−0.02	−12.15	21 8 44.09	−4.36	308 8 8.25	49.602	1 12.9	37.5	−12 52 22.3	−22.8
30	B. D. 13° 5891	11	10 47.52	−0.02	−12.15	21 10 35.35	−4.38	307 24 6.05	(49)018	1 14.9	37.6	13 36 37.9	−22.7
31	B. D. −16° 5840	11	13 58.36	0.02	12.15	21 13 46.19	4.45	304 26 7.98	46.329	1 23.5	37.6	16 35 36.4	22.2
32	ι Capricorni	11	16 57.39	0.02	**12.18**	21 16	....	303 46 7.18	47.556	1 25.6	**37.4**	17 15	....
33	B. D. −17° 6262	11	19 54.62	0.02	12.14	21 19 42.46	4.46	304 12 8.18	46.470	1 24.2	37.6	16 49 34.2	22.6
34	B. D. −21° 6020	11	21 51.46	0.01	12.14	21 21 39.31	4.56	299 24 2.28	48.292	1 41.4	37.6	21 37 22.9	21.6
35	B. D. −19° 6107	11	24 39.58	0.01	−12.14	21 24 27.43	−4.52	301 28 7.30	43.472	1 33.5	37.7	−19 34 42.0	−22.3
36	B. D. −12° 6026	11	27 13.01	0.02	−12.14	21 27 0.85	−4.40	308 20 7.90	44.194	1 12.5	37.7	−12 42 6.6	23.9
37	B. D. −19° 6131	11	31 4.83	0.01	12.14	21 30 52.68	4.52	302 12 7.70	45.582	1 30.9	37.7	18 49 58.5	22.9
38	B. D. −15° 6027	11	33 1.72	0.02	12.14	21 32 49.56	4.46	305 40 7.90	47.348	1 19.8	37.7	15 21 13.3	23.7
39	B. D. −15° 6046	11	37 53.64	0.02	12.14	21 37 41.48	4.46	306 12 7.28	41.686	1 18.4	37.7	14 51 1.0	24.1
40	B. D. −12° 6087	11	41 25.70	0.02	12.14	21 41 13.54	4.41	309 12 7.75	46.836	1 10.3	37.7	11 49 13.9	24.9
41	B. D. −15° 6075	11	44 1.65	−0.02	−12.14	21 43 49.49	−4.48	305 28 7.60	42.662	1 20.5	37.8	−15 34 44.3	−24.3
42	B. D. −8° 5753	11	46 1.72	−0.03	−12.14	21 45 49.55	−4.37	312 38 8.25	49.924	1 2.3	37.8	−8 22 5.9	−25.8
43	μ Capricorni......	11	48 7.32	0.02	**12.15**	21 47	....	307 2 7.78	41.778	1 16.1	**38.0**	14 0	....
44	B. D. −18° 6037	11	51 32.32	0.01	12.13	21 51 20.18	4.53	302 40 7.65	45.674	1 29.4	37.8	18 21 55.4	24.2
45	B. D. −11° 5726	11	54 41.67	0.02	12.13	21 54 29.52	4.42	310 14 7.58	47.475	1 7.8	37.8	10 46 59.3	25.8
46	B. D. −18° 6056	11	56 58.37	0.01	12.13	21 56 46.23	4.54	302 40 7.85	43.552	1 29.4	37.8	18 22 36.7	24.6
47	B. D. −5° 5697	11	59 38.30	−0.03	−12.13	21 59 26.14	−4.36	315 42 7.88	46.674	56.0	37.8	−5 19 2.7	−26.9
48	B. D. −6° 5912	11	2 43.83	0.03	12.13	22 2 31.67	−4.38	314 42 7.60	48.238	58.0	37.8	−6 18 34.8	−26.9
49	B. D. −11° 5770	11	5 28.35	0.02	12.13	22 5 16.20	4.44	309 42 7.85	49.586	1 9.1	37.8	11 18 19.6	26.2
50	B. D. −7° 5727	11	7 43.97	0.03	12.12	22 7 31.82	4.39	314 4 7.78	45.818	59.3	37.8	6 57 22.6	27.0
51	B. D. −12° 6227	11	11 41.84	0.02	12.12	22 11 29.70	4.46	308 52 7.75	49.596	1 11.2	37.8	12 8 21.6	26.4
52	B. D. −17° 6491	11	14 25.75	0.02	12.12	22 14 13.61	4.53	303 50 7.48	45.942	1 25.6	37.8	17 11 46.7	25.7
53	B. D. −15° 6208	11	18 14.76	0.02	−12.12	22 18 2.62	−4.51	305 36 7.70	42.884	1 20.2	37.8	−15 26 39.6	−26.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
18 23 23	30.00	60.0	58.9
19 19 29	30.08	61.0	59.5
20 31	30.09	59.0	58.0
21 28	30.09	58.0	57.7

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

14. Z. D. Thread A used.
15. Z. D. Thread B used.
34, 46. Bisections at II, VI, VII.

NO.	NAME.	THDS.	MEAN THREAD.	$c\sec\delta + n\tan\delta$	$\Delta T + m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −3° 5443	11	21 20.96	−0.03	−12.12	22 21 8.81	−4.38	317 44 8.68	45.830	52.2	37.8	−3 17 14.4	−28.0
2	B. D. −10° 5929	11	24 18.45	0.02	12.12	22 24 6.31	4.45	310 52 7.88	44.260	1 6.4	37.8	10 9 59.4	27.2
3	B. D. 7° 5797	11	26 20.33	0.03	12.11	22 26 8.19	4.42	313 58 8.28	45.512	59.6	37.8	7 3 28.2	27.7
4	B. D. 6° 6034	11	32 21.92	0.03	12.11	22 32 9.78	4.42	314 26 8.08	47.995	58.6	37.8	6 34 39.6	27.9
5	B. D. −5° 5843	11	37 10.37	0.03	12.11	22 36 58.23	4.42	315 24 8.18	47.014	56.7	37.8	5 36 56.5	28.2
6	B. D. −13° 6262	11	40 25.69	−0.02	−12.11	22 40 13.56	−4.49	307 30 7.68	46.422	1 14.8	37.8	−13 31 26.5	−27.3
7	B. D. −14° 6346	11	42 40.89	−0.02	−12.10	22 42 28.77	−4.50	306 28 7.85	43.068	1 17.7	37.8	−14 34 33.5	−27.3
8	B. D. −10° 6008	11	47 46.82	0.02	12.10	22 47 34.70	4.47	310 26 7.32	47.595	1 7.4	37.8	10 34 56.9	27.9
9	B. D. 7° 5886	11	49 38.35	0.03	12.10	22 49 26.22	4.44	313 18 7.68	44.913	1 1.0	37.8	7 43 42.5	28.3
10	B. D. −11° 5961	11	53 8.76	0.02	12.10	22 52 56.64	4.48	309 22 7.50	45.888	1 10.0	37.8	11 39 32.1	27.9
11	B. D. −15° 6325	11	56 24.76	0.02	12.10	22 56 12.64	4.50	306 14 8.68	44.868	1 18.4	37.8	14 47 58.9	27.7
12	B. D. −5° 5917	11	59 1.38	−0.03	−12.10	22 58 49.25	−4.44	315 42 8.02	44.911	56.1	37.8	−5 19 36.5	−28.7
13	φ Aquarii	11	9 25.23	−0.03	**−12.15**	23 9	....	314 26 7.88	47.522	58.6	**37.6**	−6 34	....
14	γ Piscium	11	12 15.41	0.04	**12.06**	23 12	....	323 46 8.50	44.972	42.2	**38.3**	+2 44	....
15	κ Piscium	11	22 4.89	−0.04	**−12.05**	23 21	....	321 44 8.88	46.104	45.4	**37.2**	+0 42	....

1900 SEPTEMBER 22. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

16	*h* Sagittarii	11	30 54.97	+0.07	**−13.40**	19 30	....	295 56 7.42	46.926	1 54.0	**48.0**	−25 6	....
17	*f* Sagittarii.......	11	40 49.26	0.05	**13.36**	19 40	....	301 2 7.95	46.446	1 32.3	**48.1**	19 59	....
18	B. D. −14° 5648	11	3 16.29	0.04	13.40	20 3 2.93	−4.15	306 30 8.52	43.936	1 15.2	48.3	14 32 22.6	−17.2
19	B. D. −13° 5608	11	7 9.05	0.03	13.41	20 6 55.67	4.12	308 8 8.30	43.868	1 11.0	48.3	12 54 19.9	18.1
20	B. D. −13° 5619	11	9 50.11	0.03	13.41	20 9 36.73	−4.15	307 20 8.62	48.335	1 13.0	48.3	13 40 55.9	−18.0
21	4 Capricorni	11	12 26.63	+0.06	**−13.40**	20 12	....	298 56 8.55	43.718	1 40.5	**48.5**	−22 6	....
22	B. D. −13° 5642	11	15 24.55	+0.03	−13.42	20 15 11.16	−4.16	307 58 8.50	44.525	1 11.4	48.4	−13 4 7.6	−18.7
23	B. D. −17° 5975	11	21 7.70	0.04	13.42	20 20 54.32	4.28	303 20 7.45	45.865	1 24.6	48.4	17 41 56.1	17.8
24	B. D. −13° 5680	11	24 15.89	0.03	13.43	20 24 2.49	4.19	308 6 8.60	47.684	1 11.0	48.4	12 55 6.5	19.4
25	B. D. −14° 5781	11	28 55.28	0.03	13.43	20 28 41.88	4.23	306 58 8.60	46.444	1 14.0	48.4	14 3 33.3	19.4
26	B. D. −11° 5379	11	32 45.34	0.03	13.44	20 32 31.93	4.18	309 38 8.80	49.326	1 7.2	48.4	11 22 31.1	20.5
27	B. D. −14° 5815	11	35 58.05	+0.03	−13.44	20 35 44.64	−4.25	307 12 8.22	42.076	1 13.4	48.5	−13 50 56.9	−20.0
28	B. D. −13° 5779	11	47 17.62	+0.03	−13.45	20 47 4.20	−4.28	307 26 8.08	50.112	1 12.7	48.5	−13 34 22.3	−20.9
29	B. D. −15° 5848	11	53 27.35	0.04	13.46	20 53 13.93	−4.32	306 10 8.82	45.786	1 16.2	48.6	14 51 48.1	−21.0
30	ι Capricorni	9	16 58.74	0.04	**13.57**	21 16	....	303 46 7.70	(47)956	1 23.2	**49.6**	17 15	....
31	β Aquarii.........	11	26 35.35	0.01	**13.38**	21 26	....	315 0 8.20	49.566	55.7	**47.9**	6 0	....
32	ξ Aquarii	8	32 43.57	+0.02	**−13.53**	21 32	....	312 44 8.48	(45)070	1 0.3	**48.7**	−8 17	....

1900 SEPTEMBER 24. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

33	*h* Sagittarii	11	30 55.69	+0.04	**−14.12**	19 30	....	295 56 7.28	46.558	1 53.9	**40.9**	−25 6	....
34	*f* Sagittarii.......	11	40 50.00	0.03	**14.13**	19 40	....	301 2 7.22	46.102	1 32.4	**40.8**	19 59	....
35	B. D. −17° 5860	11	1 38.66	0.03	14.13	20 1 24.56	−4.17	303 34 7.10	43.248	1 24.1	41.1	17 28 38.9	−16.1
36	C. P. D. −25° 7008	11	4 23.62	0.04	14.13	20 4 9.53	4.39	295 28 6.95	45.798	1 56.8	41.1	25 34 22.7	13.8
37	B. D. −18° 5626	11	9 1.75	0.03	14.14	20 8 47.64	4.22	302 38 8.78	46.776	1 27.2	41.2	18 23 32.7	16.4
38	B. D. −18° 5637	11	11 33.73	+0.03	−14.14	20 11 19.62	−4.23	302 18 8.95	45.145	1 28.3	41.2	−18 44 4.9	−16.5
39	β Capricorni......	11	15 41.90	+0.02	**−14.10**	20 15	....	305 56 6.95	46.389	1 17.2	**41.1**	−15 5	....
40	C. P. D. −26° 6996	10	18 55.02	0.04	14.15	20 18 40.91	−4.46	294 54 7.22	43.658	2 0.1	41.3	26 9 6.5	−14.9
41	B. D. −22° 5484	11	32 11.15	0.04	14.16	20 31 57.03	−4.40	298 14 7.40	48.819	1 44.0	41.4	22 47 11.8	−17.0
42	θ Capricorni	11	0 38.11	0.03	**14.17**	21 0	....	303 24 8.75	46.920	1 25.0	**41.9**	17 34	....
43	ν Aquarii.........	11	4 27.31	+0.02	**−14.22**	21 4	....	309 14 9.32	49.878	1 8.7	**41.8**	−11 46	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
19 22 27	30.08	57.5	56.3
23 28	30.07	56.5	56.0
22 19 28	29.85	69.0	68.6
20 25	29.86	68.0	68.2
21 42	29.85	68.2	68.1
24 19 28	30.02	70.5	71.7
20 33	30.03	68.0	67.7
21 7	30.04	67.5	67.3

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

9. Bisections at II, VI, VII.
32, 43. Bisections at I, II.
40. Bisections at I, II, VII.

Notes.

27. Clouds after this.
30. Very difficult.

1900 SEPTEMBER 26. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT + m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −20° 5814	10	0 57.58	+0.05	−14.66	20 0 42.97	−4.20	300 36 7.20	47.499	1 32.7	40.5	−20 25 25.2	−15.1
2	B. D. −21° 5629	11	4 1.80	0.05	14.66	20 3 47.19	4.22	300 10 7.30	43.325	1 34.4	40.6	20 52 46.9	15.2
3	C. P. D. −26° 6950	11	7 11.90	0.07	14.66	20 6 57.31	4.38	294 34 7.68	43.465	1 59.7	40.6	26 29 9.1	13.7
4	4 Capricorni	11	12 27.89	0.05	**14.74**	20 12	....	298 56 6.88	43.328	1 39.2	**40.8**	22 6	....
5	β Capricorni	11	15 42.36	0.04	**14.61**	20 15	....	305 56 7.40	46.289	1 15.8	**41.1**	15 5	....
6	B. D. −22° 5419	11	18 48.31	+0.06	−14.66	20 18 33.71	−4.31	298 40 8.55	46.021	1 40.3	40.8	−22 22 0.1	−16.0
7	π Capricorni	11	21 54.72	+0.04	**−14.63**	20 21	....	302 30 8.95	45.006	1 26.2	**40.5**	−18 32	....
8	B. D. −19° 5831	11	24 28.86	0.05	14.66	20 24 14.25	−4.25	302 8 8.95	43.586	1 27.5	40.9	18 54 33.7	−17.5
9	B. D. −19° 5852	11	29 1.62	0.05	14.66	20 28 47.01	4.28	301 18 8.85	45.294	1 30.3	41.0	19 44 3.9	17.6
10	B. D. −16° 5663	11	35 14.30	0.04	14.66	20 34 59.68	4.23	304 34 6.48	43.576	1 19.8	41.1	16 28 28.9	19.0
11	B. D. −12° 5808	11	38 24.80	0.03	14.66	20 38 10.17	4.14	309 2 6.92	45.368	1 7.9	41.1	11 59 42.2	20.6
12	B. D. −17° 6081	11	41 14.74	+0.04	−14.66	20 41 0.12	−4.27	303 32 6.82	41.320	1 23.0	41.1	−17 31 15.0	−19.2
13	B. D. −16° 5709	11	45 19.15	+0.04	−14.66	20 45 4.53	−4.25	305 10 6.85	42.988	1 18.1	41.2	−15 52 38.2	−20.0
14	B. D. −12° 5854	11	47 56.32	0.03	14.66	20 47 41.69	4.18	309 4 7.82	48.279	1 7.8	41.2	11 56 45.5	21.3
15	B. D. −10° 5553	11	51 48.57	0.02	14.66	20 51 33.93	4.15	310 56 7.90	48.872	1 3.5	41.2	10 4 29.8	22.1
16	B. D. −14° 5908	11	55 56.62	0.03	14.66	20 55 41.99	4.24	307 8 7.45	41.806	1 12.8	41.3	13 54 55.1	21.3
17	B. D. −11° 5524	10	0 45.14	0.03	14.66	21 0 30.51	4.20	310 0 7.95	49.644	1 5.6	41.3	11 0 17.1	22.4
18	B. D. −21° 5940	11	4 9.02	+0.05	−14.66	21 3 54.41	−4.41	300 6 7.25	42.210	1 34.9	41.4	−20 57 9.7	−19.9
19	B. D. −15° 5908	11	6 28.87	+0.04	−14.66	21 6 14.25	−4.29	306 10 8.35	43.194	1 15.4	41.4	−14 52 30.3	−21.7
20	B. D. −11° 5553	11	9 11.05	0.03	14.66	21 8 56.42	4.23	310 0 8.25	48.194	1 5.7	41.4	11 0 44.8	22.9
21	B. D. −13° 5901	11	13 24.75	0.03	14.66	21 13 10.12	4.28	308 0 8.00	49.116	1 10.5	41.5	13 0 32.3	22.7
22	ι Capricorni	11	16 59.77	0.04	**14.64**	21 16	....	303 46 8.12	47.481	1 22.3	**42.0**	17 15	....
23	B. D. −10° 5668	11	20 9.56	0.02	14.66	21 19 54.92	4.24	310 52 8.62	43.931	1 3.8	41.5	10 10 4.4	23.8
24	B. D. −12° 5998	11	22 32.31	+0.03	−14.66	21 22 17.68	−4.28	308 56 9.80	45.712	1 8.3	41.5	−12 5 33.6	−23.4
25	B. D. −17° 6302	5	26 0.83	+0.04	−14.66	21 25 46.21	−4.39	303 20 7.48	46.550	1 23.8	41.5	−17 41 33.6	−22.2
26	B. D. −20° 6237	11	29 33.21	0.05	14.66	21 29 18.60	4.45	300 30 8.08	47.453	1 33.4	41.6	20 31 27.7	21.8
27	B. D. −12° 6044	7	32 15.25	0.03	14.66	21 32 0.62	4.30	309 6 9.35	50.111	1 7.8	41.6	11 54 9.3	24.0
28	γ Capricorni	11	34 52.16	0.04	**14.68**	21 34	....	303 56 4.42	43.878	1 22.0	**41.1**	17 6	....
29	B. D. −21° 6076	11	37 42.36	0.05	14.66	21 37 27.75	4.47	300 10 5.32	46.828	1 34.7	41.6	20 51 43.1	22.2
30	B. D. − 9° 5833	11	41 15.17	+0.02	−14.66	21 41 0.53	−4.30	311 18 6.08	44.762	1 2.8	41.6	− 9 43 49.7	−25.0
31	B. D. −13° 6027	11	44 35.86	+0.03	−14.67	21 44 21.22	−4.35	307 50 5.98	47.990	1 11.0	41.6	−13 10 56.5	−24.4
32	B. D. −16° 5961	8	47 24.61	0.04	14.67	21 47 9.98	4.42	304 18 6.68	47.300	1 20.8	41.6	16 43 17.5	23.8
33	B. D. −12° 6126	11	49 57.98	0.03	14.67	21 49 43.34	4.35	308 36 7.72	44.055	1 9.1	41.6	12 26 9.7	24.9
34	B. D. −15° 6139	11	1 5.80	0.04	14.67	22 0 51.17	4.42	305 40 7.48	43.212	1 16.9	41.7	15 22 32.6	24.8
35	B. D. −19° 6227	11	3 49.17	0.05	14.68	22 3 34.54	4.48	302 2 6.75	45.052	1 28.1	41.7	19 0 9.2	24.2
36	B. D. −14° 6255	11	13 57.91	+0.03	−14.68	22 13 43.26	−4.41	307 14 7.90	44.868	1 12.7	41.7	−13 47 54.6	−25.7
37	B. D. − 6° 5972	11	16 28.89	+0.02	−14.68	22 16 14.23	−4.34	314 16 1.08	(49)381	56.6	41.7	− 6 44 20.5	−27.2
38	B. D. −14° 6276	11	19 24.87	0.03	14.69	22 19 10.21	4.42	307 0 7.22	45.522	1 13.2	41.7	14 1 44.9	26.0
39	B. D. −12° 6271	11	21 49.54	0.03	14.69	22 21 34.88	4.40	309 10 7.20	47.370	1 7.8	41.7	11 51 3.6	26.4
40	κ Aquarii	11	32 53.75	0.01	**14.72**	22 32	....	316 16 6.82	49.404	52.8	**41.2**	4 44	....
41	B. D. − 7° 5838	11	38 19.98	0.02	14.71	22 38 5.29	4.38	313 32 7.48	47.878	58.1	41.7	7 28 44.4	27.7
42	B. D. − 7° 5858	11	42 28.42	+0.02	−14.71	22 42 13.73	−4.39	313 46 6.62	47.106	57.7	41.7	− 7 14 59.7	−27.9
43	B. D. −13° 6283	11	45 36.00	+0.03	−14.71	22 45 21.32	−4.44	307 48 6.30	48.448	1 11.2	41.7	−13 12 46.0	−27.1
44	B. D. − 6° 6087	11	48 35.33	0.02	14.72	22 48 20.63	4.39	314 30 6.58	48.096	56.2	41.7	6 30 39.2	28.1
45	B. D. −15° 6305	11	51 31.62	0.04	14.72	22 51 16.94	4.46	305 32 5.68	42.059	1 17.3	41.7	15 30 56.9	26.9
46	B. D. −13° 6318	11	54 38.81	0.03	14.72	22 54 24.12	4.45	307 26 6.10	44.911	1 12.1	41.7	13 35 56.6	27.3
47	B. D. − 7° 5913	11	57 40.15	0.02	14.73	22 57 25.44	4.41	313 54 6.52	49.596	57.4	41.7	7 6 11.7	28.2
48	B. D. − 8° 6018	8	0 16.05	+0.02	−14.73	23 0 1.34	−4.42	312 48 7.48	45.430	59.7	41.7	− 8 13 33.0	−28.2
49	φ Aquarii	11	9 27.79	+0.02	**−14.75**	23 9	....	314 26 6.65	47.680	56.3	**41.8**	− 6 34	....
50	γ Piscium	11	12 18.04	−0.01	**−14.71**	23 12	....	323 46 7.78	45.039	40.5	**42.0**	+ 2 44	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
26 19 58	19.92	77.3	76.1
20 30	29.92	76.0	75.5
21 27	29.92	75.0	74.2
22 25	29.92	74.0	73.4
23 15	29.90	74.0	73.2

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

25, 36, 43.	Bisections at I, II.
26.	Bisections at II, VI, VII.
30, 39.	Bisections at I, II, VII.
32.	Bisection at II.
33.	Bisection at VI.
48.	Bisections at II, VI.
49.	Bisections at VI, VII.

Note.

Sept. 26. All stars observed through clouds more or less dense.

1900 OCTOBER 6. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	*c* SEC δ + *n* TAN δ	Δ*T*+*m*	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	*h* Sagittarii	11	30 59.45	+0.05	**−18.12**	19 30	....	295 56 7.38	46.528	1 52.3	**42.4**	−25 6	....
2	*f* Sagittarii	11	40 53.80	0.04	**18.14**	19 40	....	301 2 6.80	46.112	1 31.1	**42.3**	19 59	....
3	B. D. −18° 5553	11	53 39.35	0.03	18.12	19 53 21.26	−3.96	302 48 7.48	46.874	1 25.1	42.4	18 13 31.2	−14.9
4	B. D. 17° 5832	11	56 10.91	0.03	18.12	19 55 52.82	3.95	303 54 8.60	44.219	1 21.7	42.4	17 8 17.7	15.4
5	C. P. D. −27° 6933	11	59 28.39	0.06	18.11	19 59 10.34	4.22	293 56 6.60	48.766	2 3.1	42.5	27 5 33.8	12.3
6	C. P. D. −24° 6906	11	2 4.17	+0.05	−18.11	20 1 46.11	−4.15	296 52 6.45	46.664	1 48.1	42.5	−24 9 59.3	−13.5
7	C. P. D. −24° 6922	11	5 52.29	+0.05	−18.11	20 5 34.23	−4.17	296 32 6.38	43.312	1 49.7	42.5	−24 31 6.9	−13.7
8	B. D. −22° 5372	11	8 47.45	0.05	18.11	20 8 29.39	4.13	298 42 6.30	45.640	1 40.2	42.6	22 20 11.3	14.7
9	B. D. −21° 5684	11	13 57.95	0.04	18.11	20 13 39.88	4.12	299 46 7.15	47.404	1 35.9	42.6	21 15 32.4	15.5
10	B. D. −16° 5581	11	17 15.19	0.03	18.11	20 16 57.11	4.03	304 12 8.50	44.854	1 20.9	42.6	16 50 5.0	17.2
11	C. P. D. −25° 7071	11	20 39.21	0.06	18.11	20 20 21.16	−4.25	295 46 5.88	46.636	1 53.5	42.6	25 16 5.9	−14.6
12	*ρ* Capricorni	11	23 31.60	+0.03	**−18.09**	20 23	....	302 52 6.32	50.540	1 25.0	**42.6**	−18 8	....
13	B. D. −21° 5752	11	28 0.19	+0.04	−18.10	20 27 42.13	−4.17	299 48 6.42	46.154	1 35.9	42.7	−21 13 57.2	−16.6
14	B. D. −21° 5768	11	31 1.58	0.04	18.10	20 30 43.52	4.18	300 8 6.20	41.010	1 34.8	42.7	20 55 34.9	16.9
15	C. P. D. −24° 7050	11	34 37.19	0.05	18.10	20 34 19.14	4.27	296 54 6.90	46.335	1 48.2	42.7	24 8 5.5	16.1
16	B. D. −14° 5839	11	39 21.91	0.03	18.10	20 39 3.84	4.07	306 28 7.95	49.601	1 14.5	42.7	14 32 28.2	19.6
17	C. P. D. −23° 7859	11	42 54.04	0.05	18.10	20 42 35.99	4.27	297 56 5.45	46.611	1 43.6	42.8	23 5 57.1	17.1
18	B. D. 13° 5773	11	45 33.30	+0.02	−18.10	20 45 15.22	−4.06	308 6 6.65	49.052	1 10.2	42.8	−12 54 35.8	−20.6
19	B. D. −19° 5950	11	48 12.62	+0.04	−18.09	20 47 54.57	−4.21	301 32 4.78	48.339	1 29.6	42.8	−19 29 10.7	18.6
20	B. D. −22° 5572	11	51 28.05	0.05	18.09	20 51 10.01	4.28	298 44 4.70	40.660	1 40.6	42.8	22 23 2.1	17.9
21	B. D. −19° 5982	11	54 17.55	0.04	18.09	20 53 59.50	4.22	301 38 5.42	42.426	1 29.4	42.8	19 25 3.3	19.1
22	B. D. −12° 5890	11	56 54.85	0.02	18.09	20 56 36.78	4.09	308 58 6.32	41.720	1 8.3	42.8	12 4 54.9	21.6
23	B. D. −14° 5936	11	1 59.37	0.02	18.09	21 1 41.30	4.15	306 44 6.55	41.651	1 14.0	42.9	14 19 1.8	21.2
24	B. D. −16° 5810	11	4 57.24	+0.03	−18.09	21 4 39.18	−4.19	304 56 6.52	44.734	1 19.0	42.9	−16 6 7.7	−20.9
25	B. D. −20° 6159	11	8 39.18	+0.04	−18.09	21 8 21.13	−4.29	300 32 5.60	46.846	1 33.4	42.9	−20 29 42.4	−19.8
26	B. D. 9° 5700	10	11 17.94	0.01	18.09	21 10 59.86	4.10	311 24 6.10	45.919	1 2.6	42.9	9 37 29.0	23.2
27	B. D. −14° 5997	11	14 41.30	0.02	18.08	21 14 23.24	4.20	306 36 5.82	44.935	1 14.3	42.9	14 25 59.8	22.0
28	B. D. −13° 5923	11	19 6.01	0.02	18.08	21 18 47.95	4.19	307 44 5.88	44.624	1 11.4	42.9	13 18 2.8	22.6
29	B. D. −19° 6098	11	21 48.61	0.04	18.08	21 21 30.57	4.31	301 34 5.22	42.374	1 29.8	42.9	19 29 5.0	20.9
30	B. D. −14° 6039	11	24 34.01	+0.02	−18.08	21 24 15.95	−4.23	306 34 5.82	46.918	1 14.4	42.9	−14 27 21.9	−22.6
31	B. D. −16° 5885	11	28 31.15	+0.03	−18.08	21 28 13.10	−4.28	304 24 5.60	44.962	1 20.6	43.0	−16 38 5.9	22.2
32	*ξ* Aquarii	11	32 47.97	0.01	**18.07**	21 32	....	312 44 6.52	44.936	59.9	**43.2**	8 17	....
33	B. D. −14° 6102	11	36 29.01	0.02	18.08	21 36 10.95	4.26	306 32 6.08	47.329	1 14.5	43.0	14 29 13.9	23.2
34	B. D. 15° 6052	11	38 55.76	0.03	18.07	21 38 37.72	4.28	305 50 5.30	44.854	1 16.5	43.0	15 12 4.2	23.2
35	*δ* Capricorni	11	41 53.71	0.03	**18.08**	21 41	....	304 28 5.58	43.740	1 20.5	**43.1**	16 34	....
36	B. D. −16° 5998	11	56 28.59	+0.03	−18.07	21 56 10.55	−4.34	304 56 5.98	47.785	1 19.1	43.1	−16 5 10.0	−23.9
37	B. D. −16° 6012	11	59 7.94	+0.03	−18.07	21 58 49.90	−4.36	304 24 5.30	44.070	1 20.7	43.1	−16 38 23.5	23.9
38	B. D. −20° 6362	11	2 17.42	0.04	18.06	22 1 59.40	4.42	301 0 4.48	42.707	1 31.9	43.1	20 3 2.3	23.2
39	B. D. −15° 6152	11	4 46.64	0.03	18.06	22 4 28.61	4.35	305 26 5.00	44.056	1 17.7	43.1	15 36 21.1	24.4
40	B. D. −11° 5778	11	7 41.91	0.02	18.06	22 7 23.87	4.30	310 8 7.20	42.015	1 5.7	43.1	10 54 46.1	25.7
41	B. D. −15° 6180	11	11 55.55	0.03	18.06	22 11 37.52	4.36	305 54 8.10	42.164	1 16.4	43.1	15 8 53.0	24.9
42	B. D. − 9° 5978	11	21 53.69	+0.01	−18.06	22 21 35.64	−4.32	312 0 7.40	48.156	1 1.4	43.1	9 0 43.8	−26.7
43	B. D. −13° 6204	11	25 3.19	+0.02	−18.06	22 24 45.15	−4.37	307 36 8.10	47.198	1 11.8	43.1	−13 25 11.9	25.8
44	B. D. −15° 6243	11	29 28.16	0.03	18.05	22 29 10.14	4.40	305 24 6.58	46.222	1 17.8	43.1	15 37 38.1	25.5
45	B. D. −14° 6317	11	32 56.84	0.02	18.05	22 32 38.81	4.39	307 8 8.10	48.058	1 13.0	43.1	13 52 56.5	26.0
46	B. D. − 9° 6037	11	38 7.38	0.01	18.05	22 37 49.34	4.36	311 22 8.88	43.685	1 2.9	43.1	9 40 10.0	27.1
47	B. D. −12° 6342	11	41 13.21	+0.02	18.05	22 40 55.18	4.39	308 58 9.15	46.192	1 8.4	43.2	12 3 26.8	26.7
48	B. D. − 5° 5866	11	43 42.14	0.00	−18.05	22 43 24.09	−4.34	315 56 8.65	44.520	53.6	43.2	− 5 5 44.6	28.2
49	*λ* Aquarii	11	47 46.27	+0.01	**−18.03**	22 47	....	312 54 6.50	49.621	59.6	**42.9**	− 8 6	....
50	B. D. −14° 6370	11	51 15.60	0.02	18.05	22 50 57.57	−4.42	306 56 6.52	48.426	1 13.6	43.2	14 4 51.8	−26.6
51	B. D. − 8° 5991	11	54 9.35	0.01	18.04	22 53 51.32	4.39	312 16 6.48	48.940	1 0.9	43.2	8 44 29.3	27.7
52	B. D. − 5° 5910	11	56 43.69	0.00	18.04	22 56 25.65	4.37	315 46 7.20	48.598	53.9	43.2	5 14 28.2	28.4
53	B. D. − 2° 5876	11	59 31.98	0.00	18.04	22 59 13.94	4.37	318 36 6.70	43.939	48.9	43.2	2 25 53.1	29.0
54	B. D. −13° 6344	11	2 6.76	+0.02	−18.04	23 1 48.74	−4.43	307 46 6.55	45.944	1 11.5	43.2	−13 15 37.3	−27.1

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
6 19 34	29.95	78.5	77.3
20 25	29.95	77.0	75.7
21 25	29.96	75.0	74.0
22 26	29.96	74.3	73.2

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

7. Bisections at VI, VII.
20. Z. D. Thread B used.
38. Bisections at II, VI, VII.
46. Bisections at I, VI, VII.

Note.

36, 37, 38, 39. Eyepiece not in good focus.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ n TAN δ	$\Delta T \cdot m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. − 4° 5833	9	4 49.77	0.00	−18.04	23 4 31.73	−4.39	316 32 6.75	44.459	52.6	43.2	4 29 46.7	28.7
2	φ Aquarii	11	9 31.10	0.00	**18.08**	23 9	....	314 26 6.75	47.668	56.5	**43.3**	6 34	....
3	B. D. −12° 6461	11	12 49.40	0.02	18.04	23 12 31.38	4.44	308 46 8.60	47.344	1 9.0	43.2	12 15 5.8	27.5
4	B. D. −13° 6391	11	17 1.35	0.02	18.04	23 16 43.33	4.44	308 2 7.40	46.682	1 10.8	43.2	12 59 21.6	27.5
5	B. D. −10° 6114	11	21 47.54	0.02	18.03	23 21 29.53	4.44	310 26 7.28	48.816	1 5.0	43.2	10 34 35.0	27.9
6	B. D. − 5° 5999	11	24 44.44	0.00	−18.03	23 24 26.41	−4.43	315 56 8.05	49.442	53.7	43.2	− 5 4 10.9	−28.8
7	ι Piscium.........	11	35 10.91	−0.02	**−18.02**	23 34	....	326 6 8.12	47.756	37.3	**43.2**	+ 5 5	....
8	B. D. − 2° 6021	11	37 36.28	0.01	18.03	23 37 18.24	−4.45	318 58 8.52	47.105	48.3	43.2	− 2 2 49.9	−29.2
9	B. D. − 1° 4485	11	40 15.05	0.01	18.03	23 39 57.01	4.45	319 48 8.65	48.182	46.9	43.2	− 1 12 27.7	29.3
10	B. D. + 3° 4895	11	43 0.72	0.02	18.03	23 42 42.67	4.47	324 42 8.30	46.018	39.3	43.2	+ 3 40 57.9	29.8
11	B. D. + 5° 5224	11	45 30.15	−0.03	−18.03	23 45 12.09	−4.48	327 2 8.65	41.512	36.1	43.2	+ 5 59 35.1	−30.0
12	B. D. − 7° 6104	11	48 21.54	+0.01	−18.02	23 48 3.53	−4.46	313 50 8.05	44.364	57.8	43.2	− 7 11 52.4	−28.6
13	B. D. + 7° 5101	11	50 53.31	−0.03	18.02	23 50 35.26	4.50	328 42 8.48	44.341	33.8	43.2	+ 7 40 31.4	30.0
14	ω Piscium........	11	54 33.09	−0.03	**17.99**	23 54	....	327 20 7.80	46.198	35.6	**42.9**	+ 6 19	....
15	B. D. − 3° 5749	11	57 4.49	0.00	18.02	23 56 46.47	−4.47	317 26 8.75	48.035	51.0	43.2	− 3 34 34.5	−29.0
16	33 Piscium	11	0 35.54	0.00	**−18.03**	0 0	....	314 46 7.92	45.330	56.0	**43.4**	− 6 15	....

1900 OCTOBER 9. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ n TAN δ	$\Delta T \cdot m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
17	ι Aquarii	11	1 25.48	+0.01	**−18.98**	22 1	....	306 42 9.18	42.089	1 17.1	**42.3**	−14 20	....
18	θ Aquarii	11	11 56.48	0.00	**18.78**	22 11	....	312 44 9.28	48.969	1 2.3	**41.8**	8 16	....
19	B. D. − 7° 5765	11	18 40.52	−0.01	18.78	22 18 21.73	−4.26	313 20 8.55	45.421	1 1.0	42.4	7 41 34.0	−26.8
20	B. D. −11° 5813	11	21 46.15	0.00	18.78	22 21 27.37	4.31	309 18 8.90	45.292	1 10.3	42.5	11 43 45.5	25.9
21	B. D. − 4° 5683	11	24 35.28	−0.01	18.78	22 24 16.49	4.25	316 20 9.15	45.269	55.0	42.6	4 41 30.6	27.7
22	B. D. −10° 5947	11	29 13.70	0.00	−18.78	22 28 54.92	−4.31	310 54 8.78	47.432	1 6.5	42.7	−10 7 1.0	26.6
23	κ Aquarii	11	32 57.71	−0.01	**−18.74**	22 32	....	316 16 9.10	49.491	55.1	**43.0**	− 4 44	....
24	B. D. − 3° 5491	11	38 10.90	0.02	18.77	22 37 52.11	−4.28	317 48 9.32	50.158	52.2	42.9	3 11 54.1	−28.4
25	B. D. − 3° 5505	11	42 25.55	0.02	18.77	22 42 6.76	4.30	317 48 9.32	44.690	52.3	42.9	3 13 39.1	28.4
26	B. D. −10° 6002	11	46 21.14	0.00	18.77	22 46 2.37	4.35	311 10 9.88	47.955	1 5.9	43.0	9 50 49.6	27.1
27	B. D. −12° 6374	11	49 13.88	0.00	18.77	22 48 55.11	4.38	308 18 7.85	48.390	1 13.0	43.0	12 42 50.3	26.6
28	B. D. − 4° 5793	11	52 20.15	−0.02	−18.77	22 52 1.36	−4.33	317 14 7.45	49.026	53.3	43.0	− 3 46 18.9	−28.5
29	B. D. − 0° 4443	11	55 53.33	−0.02	−18.77	22 55 34.54	−4.32	320 40 6.85	47.921	47.3	43.1	− 0 20 34.9	−29.2
30	B. D. − 1° 4382	11	58 24.13	0.02	18.77	22 58 5.34	4.33	320 4 8.20	45.648	48.3	43.2	0 57 18.2	29.1
31	B. D. −11° 5997	11	1 3.26	0.00	18.77	23 0 44.49	4.38	310 2 7.92	50.195	1 8.6	43.2	−10 58 11.5	27.3
32	B. D. + 1° 4686	11	3 56.72	−0.03	18.77	23 3 37.92	4.34	322 36 8.32	47.960	44.1	43.2	+ 1 35 30.4	29.6
33	B. D. −11° 6020	11	6 39.21	0.00	18.77	23 6 20.44	4.40	309 58 8.32	48.815	1 8.8	43.3	−11 2 37.8	27.4
34	B. D. −11° 6032	11	9 50.68	0.00	−18.77	23 9 31.91	−4.40	309 48 7.90	46.189	1 9.2	43.3	−11 13 29.0	−27.4
35	γ Piscium	11	12 22.05	−0.03	**−18.73**	23 12	....	323 46 8.42	45.204	42.3	**43.6**	+ 2 44	....
36	B. D. − 4° 5868	11	15 28.03	0.02	18.77	23 15 9.24	−4.39	316 34 9.28	45.812	54.7	43.4	− 4 27 20.5	−28.7
37	B. D. + 2° 4660	11	18 9.91	0.03	18.77	23 17 51.11	4.38	323 18 9.68	45.336	43.0	43.4	+ 2 16 42.4	29.8
38	κ Piscium	11	22 11.54	0.02	**18.74**	23 21	....	321 44 10.05	46.320	45.6	**43.4**	+ 0 42	....
39	B. D. + 2° 5973	11	24 42.25	−0.02	18.77	23 24 23.46	4.40	318 40 10.08	49.709	50.8	43.4	2 20 1.1	29.1
40	B. D. −11° 6098	11	27 38.25	0.00	−18.77	23 27 19.48	−4.43	309 28 7.42	49.036	1 10.1	43.5	−11 32 36.0	−27.6
41	B. D. −11° 6110	11	30 40.43	0.00	−18.77	23 30 21.66	−4.43	309 56 7.42	44.574	1 9.0	43.5	−11 6 0.5	−27.7
42	B. D. − 4° 5917	10	33 25.44	−0.02	18.76	23 33 6.66	4.42	316 42 8.05	49.152	54.4	43.5	4 18 17.5	28.8
43	B. D. − 7° 6070	11	36 24.56	0.01	18.76	23 36 5.79	4.43	314 0 7.48	45.874	59.8	43.5	7 1 26.3	28.4
44	B. D. − 5° 6041	11	39 49.72	0.01	18.76	23 39 30.95	4.43	315 28 8.55	46.215	56.9	43.5	5 33 15.8	28.6
45	B. D. − 5° 6048	11	42 54.08	0.02	18.76	23 42 35.30	4.44	316 0 8.18	48.318	55.8	43.5	5 0 34.8	28.7
46	B. D. − 6° 6303	11	47 0.49	0.01	−18.76	23 46 41.72	−4.44	314 48 7.28	45.121	58.2	43.5	− 6 13 39.4	−28.5
47	B. D. − 2° 6059	11	49 54.49	−0.02	−18.76	23 49 35.71	−4.45	318 32 8.12	44.706	51.1	43.5	− 2 29 39.4	−29.0
48	ω Piscium........	11	54 33.74	0.04	**18.68**	23 54	....	327 20 7.95	46.288	37.1	**42.7**	+ 6 19	....
49	30 Piscium........	11	57 13.19	0.01	**18.82**	23 56	....	314 28 7.20	44.976	59.0	**43.3**	− 6 33	....
50	33 Piscium........	11	0 36.28	−0.01	**−18.76**	0 0	....	314 46 6.98	45.536	58.4	**44.1**	− 6 15	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
6 23 30	29.96	73.0	72.1
0 2	29.96	72.8	71.6
9 22 0	29.97	56.0	54.2
22 34	29.97	55.0	53.3
23 19	29.96	54.0	52.2
0 1	29.96	53.0	51.0

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

48. Bisections at I, VI, VII.

Note.

Oct. 9. All stars unsteady at beginning of work.

1900 OCTOBER 10. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	$\Delta T - m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	σ Aquarii	11	25 45.02	−0.04	**−19.29**	22 25	....	309 50 8.98	47.821	1 9.2	**43.3**	−11 10	....
2	κ Aquarii	11	32 58.18	0.04	**19.19**	22 32	....	316 16 8.08	49.534	55.2	**42.7**	4 44	....
3	B. D. −11° 5923	11	43 38.19	0.04	19.25	22 43 18.90	−4.34	309 56 8.18	48.962	1 8.9	43.0	11 4 35.0	−26.8
4	λ Aquarii	10	47 47.41	0.04	**19.15**	22 47	....	312 54 8.35	49.650	1 2.1	**42.9**	8 6	....
5	B. D. 3° 5539	11	53 30.15	0.04	19.25	22 53 10.86	4.32	318 6 8.48	45.735	51.9	43.0	2 55 19.6	28.7
6	B. D. 3° 5553	11	57 9.88	−0.04	−19.25	22 56 50.59	−4.33	317 48 8.38	47.064	52.4	43.0	− 3 12 54.7	−28.7
7	B. D. − 8° 6018	11	0 20.70	−0.04	−19.25	23 0 1.41	−4.36	312 48 8.08	45.628	1 2.4	43.1	− 8 13 32.6	−27.8
8	B. D. − 1° 4393	11	3 1.74	0.04	19.26	23 2 42.44	4.34	320 12 8.20	44.301	48.2	43.1	0 49 43.8	29.2
9	B. D. −14° 6413	11	5 29.43	0.05	19.26	23 5 10.12	4.41	306 52 7.82	42.419	1 17.0	43.1	14 10 49.0	26.6
10	B. D. −10° 6082	11	8 9.69	0.04	19.26	23 7 50.39	4.39	310 56 7.28	43.305	1 6.6	43.1	10 6 22.2	27.5
11	ψ_1 Aquarii	11	11 2.95	0.04	**19.31**	23 10	....	311 24	......	......	....	9 37	....
12	B. D. − 0° 4498	11	13 36.72	−0.04	−19.26	23 13 17.42	−4.37	321 0 8.28	47.152	46.8	43.1	− 0 0 48.3	−29.4
13	B. D. − 7° 5993	11	16 28.12	−0.04	−19.26	23 16 8.82	−4.39	313 28 8.12	44.842	1 1.0	43.1	− 7 33 46.3	−28.1
14	B. D. − 8° 6103	11	19 18.72	0.04	19.26	23 18 59.42	4.40	312 56 7.90	45.718	1 2.1	43.1	8 5 30.8	28.1
15	B. D. − 7° 6012	11	21 47.93	0.04	19.26	23 21 28.63	4.40	313 52 8.52	47.334	1 0.1	43.1	7 8 57.2	28.3
16	B. D. −10° 6120	11	24 14.10	0.04	19.27	23 23 54.79	4.41	311 12 8.48	48.999	1 6.0	43.2	9 48 31.3	27.8
17	B. D. − 3° 5651	11	27 23.95	0.04	19.27	23 27 4.64	4.40	317 28 8.30	42.731	53.1	43.2	3 34 18.8	28.9
18	B. D. − 8° 6142	11	30 46.40	−0.04	−19.27	23 30 27.09	−4.42	313 0 8.45	48.545	1 2.0	43.2	− 8 0 36.0	−28.2
19	B. D. − 9° 6224	11	33 26.40	−0.04	−19.27	23 33 7.09	−4.42	311 50 7.35	49.410	1 4.5	43.2	− 9 10 23.0	−28.0
20	λ Piscium	11	37 20.41	0.04	**19.31**	23 37	....	322 16 8.22	44.171	44.8	**43.9**	+ 1 14	....
21	B. D. 0° 4566	11	41 51.25	0.04	19.27	23 41 31.94	4.44	321 0 8.48	46.582	46.8	43.2	0 0 58.5	29.4
22	B. D. + 0° 5054	11	44 44.12	0.04	19.28	23 44 24.80	4.44	321 32 8.38	48.783	46.0	43.2	0 31 45.1	29.4
23	B. D. + 4° 5066	11	49 22.06	0.04	19.28	23 49 2.74	4.47	325 22 8.95	41.261	40.0	43.2	4 19 26.7	29.8
24	B. D. + 3° 4909	11	52 3.78	−0.04	−19.28	23 51 44.46	−4.48	325 12 8.10	44.921	40.2	43.3	+ 4 10 35.7	29.7
25	ω Piscium	11	54 34.30	−0.03	**−19.20**	23 54	....	327 20 8.38	46.248	37.1	**42.8**	+ 6 19	....
26	B. D. + 7° 5121	11	57 46.85	0.03	19.28	23 57 27.54	−4.51	328 58 8.55	43.691	34.8	43.3	+ 7 56 17.9	30.0
27	33 Piscium	11	0 36.92	0.04	**−19.37**	0 0	....	314 46 7.98	45.430	58.4	**43.1**	− 6 15	....

1900 OCTOBER 11. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	$\Delta T - m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
28	*f* Sagittarii	11	40 55.55	+0.02	**−19.97**	19 40	....	301 2 10.58	46.082	1 33.8	**42.1**	−19 59	......
29	C. P.D. −23° 7590	11	44 42.35	0.02	20.02	19 44 22.35	−3.94	298 0 7.60	47.480	1 46.0	42.4	23 1 40.3	−12.4
30	B. D. −21° 5556	11	47 23.15	0.02	20.02	19 47 3.15	3.91	299 44 7.88	(42)385	1 38.9	42.4	21 19 10.7	13.2
31	C. P.D. −26° 6880	11	50 6.94	0.03	20.02	19 49 46.95	4.06	294 30 7.88	42.058	2 3.7	42.4	26 33 41.7	11.6
32	B. D. −15° 5516	11	52 40.64	0.01	20.02	19 52 20.63	3.80	305 16 8.32	47.699	1 20.0	42.4	15 45 9.5	15.6
33	C. P.D. −24° 6879	11	55 13.05	+0.02	−20.02	19 54 53.05	−4.02	296 34 8.08	48.815	1 52.8	42.4	−24 27 21.0	−12.7
34	B. D. −22° 5318	11	58 12.89	+0.02	−20.02	19 57 52.89	−3.99	298 10 7.90	45.370	1 45.5	42.4	−22 52 20.0	−13.5
35	B. D. −17° 5860	11	1 44.36	0.01	20.02	20 1 24.35	3.88	303 34 7.78	43.354	1 25.4	42.4	17 28 38.7	15.7
36	C. P.D. −25° 7008	11	4 29.29	0.02	20.02	20 4 9.29	4.09	295 28 7.45	45.865	1 58.5	42.4	25 34 23.9	13.1
37	B. D. −13° 5608	11	7 15.53	0.00	20.02	20 6 55.51	3.81	308 8 7.80	43.646	1 12.3	42.4	12 54 20.1	17.7
38	B. D. −15° 5597	11	10 9.53	0.00	20.02	20 9 49.51	−3.87	305 58 7.82	42.075	1 18.2	42.4	15 4 56.1	−17.2
39	4 Capricorni	11	12 33.03	+0.02	**−20.09**	20 12	....	298 56 7.00	43.562	1 42.5	**42.7**	−22 6	......
40	C. P.D. −23° 7723	11	15 58.70	+0.02	−20.02	20 15 38.70	−4.09	297 14 6.90	48.760	1 49.9	42.4	−23 47 20.4	−14.6
41	C. P.D. −26° 6996	11	19 0.66	0.02	20.02	20 18 40.66	4.16	294 54 7.12	43.822	2 1.9	42.4	26 9 6.8	14.0
42	π Capricorni	11	21 59.85	0.01	**19.98**	20 21	....	302 30	......	......	....	18 32	......
43	B. D. −19° 5830	11	24 32.67	0.01	20.02	20 24 12.66	4.01	302 6 6.65	49.581	1 30.4	42.4	18 54 45.4	16.0
44	C. P.D. −23° 7796	11	28 38.52	+0.02	20.02	20 28 18.52	4.13	297 28 6.12	42.955	1 49.1	42.4	23 35 11.7	15.6
45	B. D. −12° 5778	11	31 9.49	0.00	20.02	20 30 49.47	−3.91	308 18 7.82	46.810	1 12.0	42.4	−12 43 19.1	19.5
46	B. D. −15° 5743	11	34 4.86	0.00	−20.02	20 33 44.84	−3.97	305 44 6.82	45.055	1 18.9	42.4	−15 18 0.6	18.8
47	B. D. −21° 5802	11	36 42.46	0.01	20.02	20 36 22.45	4.12	299 24 6.38	47.558	1 40.6	42.4	21 37 34.7	16.9
48	B. D. −16° 5690	11	40 2.04	0.00	20.02	20 39 42.02	4.01	304 52 8.28	47.273	1 21.4	42.4	16 9 19.8	19.0
49	B. D. −11° 5434	11	44 20.99	0.00	20.02	20 44 0.97	3.95	309 12 7.90	47.174	1 9.6	42.5	11 49 9.7	20.7
50	B. D. −17° 6112	10	47 42.36	0.00	−20.02	20 47 22.34	−4.07	303 40 7.75	43.542	1 25.2	42.5	−17 22 35.1	−19.1

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
10 22 26	29.92	53.0	51.6
23 25	29.91	52.0	50.8
0 2	29.90	51.0	50.1
11 19 38	29.83	60.5	60.3
20 26	29.83	58.0	57.4

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

12, 28, 48. Bisections at II, VI, VII.
22. Bisections at I, II, VI.

Note.

Oct. 10. Seeing poor at beginning, very bad at end of work.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT + m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −13° 5791	11	50 33.62	0.00	20.02	20 50 13.60	−4.00	307 46 7.58	49.178	1 13.2	42.5	−13 14 35.2	−20.6
2	B. D. −11° 5484	11	54 12.43	0.00	20.02	20 53 52.41	3.98	309 56 7.35	45.409	1 7.8	42.5	11 5 42.3	21.6
3	B. D. −21° 5901	11	56 46.95	+0.01	20.02	20 56 26.94	4.19	299 20 4.60	42.709	1 40.8	42.5	21 43 9.8	18.3
4	B. D. −19° 6024	11	2 14.11	0.01	20.02	21 1 54.10	4.16	301 34 7.32	42.728	1 32.3	42.5	19 28 58.2	19.4
5	B. D. −17° 6196	11	5 11.06	0.00	20.02	21 4 51.04	4.13	303 40 7.08	46.964	1 25.1	42.5	17 21 30.0	20.3
6	B. D. −21° 5974	11	10 20.69	+0.01	−20.02	21 10 0.68	−4.22	299 58 6.32	47.058	1 38.2	42.5	−21 3 42.1	−19.4
7	B. D. −20° 6178	11	13 10.23	+0.01	−20.02	21 12 50.22	−4.22	300 18 5.65	43.119	1 36.9	42.5	−20 44 57.0	−19.7
8	B. D. −15° 5958	11	16 22.65	0.00	20.02	21 16 2.63	4.14	305 28 7.52	43.741	1 19.6	42.5	15 34 25.9	21.5
9	B. D. −14° 6020	11	20 19.77	0.00	20.02	21 19 59.75	4.14	306 20 8.80	44.552	1 17.0	42.5	14 42 6.5	22.0
10	B. D. −13° 5941	11	24 20.89	0.00	20.02	21 24 0.87	4.13	307 48 7.95	50.619	1 13.0	42.5	13 12 7.0	22.7
11	β Aquarii........	11	26 41.82	−0.01	**20.05**	21 26	....	315 0 8.62	49.289	56.7	**42.2**	6 0	....
12	B. D. −9° 5854	10	45 40.06	−0.01	−20.03	21 45 20.02	−4.15	311 36 8.20	42.748	1 3.9	42.6	−9 26 28.7	−24.9
13	μ Capricorni.......	11	48 15.04	0.00	−**20.10**	21 47	....	307 2 8.08	41.871	1 15.2	**43.4**	−14 0	....
14	B. D. −7° 5669	11	51 21.72	−0.01	20.03	21 51 1.68	−4.14	313 36 9.12	41.421	59.7	42.6	7 26 49.1	−25.8
15	B. D. −11° 5756	11	2 22.81	0.01	20.03	22 2 2.77	4.22	310 6 8.90	45.436	1 7.4	42.6	10 55 40.0	25.3
16	B. D. −12° 6196	11	5 41.09	−0.01	20.03	22 5 21.05	4.25	308 58 9.22	47.661	1 10.2	42.6	12 2 59.8	25.1
17	B. D. −16° 6046	11	9 37.78	0.00	20.03	22 9 17.75	4.31	304 44 7.98	45.546	1 21.8	42.6	16 17 53.1	24.1
18	B. D. −18° 6096	11	12 29.96	0.00	−20.03	22 12 9.93	−4.35	302 24 7.92	41.560	1 29.4	42.6	−18 39 17.2	−23.6
19	B. D. −8° 5855	11	15 20.53	−0.01	−20.03	22 15 0.49	−4.24	312 42 8.85	47.368	1 1.5	42.6	−8 18 57.1	−26.5
20	B. D. −4° 5663	11	17 50.48	0.02	20.03	22 17 30.43	4.21	316 46 9.02	49.896	53.4	42.6	4 14 0.4	27.6
21	B. D. −5° 5790	11	21 18.34	0.02	20.03	22 20 58.29	4.23	315 20 8.68	(47)889	56.1	42.6	5 40 41.9	27.4
22	B. D. −16° 6092	11	23 54.70	0.00	20.03	22 23 34.67	4.35	304 22 7.12	47.332	1 22.9	42.7	16 39 20.9	24.7
23	B. D. −3° 5460	11	26 32.54	0.02	20.03	22 26 12.49	4.23	317 36 6.95	46.999	51.9	42.7	3 24 56.6	28.0
24	B. D. −3° 5472	11	30 34.98	−0.02	−20.03	22 30 14.93	−4.24	318 14 8.08	49.961	50.7	42.7	−2 45 57.5	28.3
25	κ Aquarii	11	32 58.94	−0.02	−**19.97**	22 32	....	316 16 8.32	49.479	54.4	**42.7**	−4 44	....
26	B. D. −16° 6142	11	38 35.57	0.00	20.03	22 38 15.54	−4.38	304 22 7.38	47.668	1 23.0	42.7	16 39 14.3	−25.2
27	B. D. −11° 5912	11	41 22.51	0.01	20.03	22 41 2.47	4.34	309 20 7.35	47.502	1 9.4	42.7	11 41 4.0	26.5
28	τ Aquarii.........	11	44 42.28	0.00	**20.02**	22 44	....	306 54 8.25	48.620	1 15.7	**42.2**	14 6	...
29	B. D. −3° 5521	11	47 54.88	0.02	20.03	22 47 34.83	4.30	317 52 8.48	46.852	51.5	42.7	3 8 57.5	28.6
30	B. D. −11° 5953	11	51 59.20	−0.01	−20.03	22 51 39.16	−4.35	310 14 6.92	46.521	1 7.2	42.8	−10 47 21.1	−27.0
31	B. D. −10° 6038	11	56 18.96	−0.01	−20.03	22 55 58.92	−4.36	310 56 6.85	48.014	1 5.6	42.8	−10 4 51.0	−27.3
32	B. D. −12° 6413	11	59 39.96	0.01	20.03	22 59 19.92	4.38	308 18 7.48	49.050	1 12.0	42.8	12 42 37.5	26.8
33	B. D. −9° 6123	11	2 28.98	0.01	20.03	23 2 8.94	4.37	311 40 6.00	48.048	1 4.0	42.8	9 20 49.6	27.5
34	B. D. −8° 6040	11	5 36.53	0.01	20.03	23 5 16.49	4.37	312 40 8.60	48.609	1 1.8	42.8	8 20 34.0	27.8
35	B. D. −0° 4483	11	8 17.15	0.02	20.03	23 7 57.10	4.35	320 30 8.15	48.770	47.0	42.9	−0 30 16.8	29.3
36	B. D. +0° 4982	11	10 56.43	−0.02	−20.03	23 10 36.38	−4.36	321 48 7.62	44.395	44.9	42.9	+0 46 20.9	−29.6
37	B. D. −2° 5925	11	13 43.06	−0.02	−20.03	23 13 23.01	−4.37	318 34 7.90	49.571	50.3	42.9	−2 26 4.9	−29.0
38	B. D. +1° 4714	11	16 29.22	0.02	20.03	23 16 9.17	4.37	322 40 7.98	47.949	43.5	42.9	+1 39 30.8	29.7
39	B. D. −1° 4427	11	19 0.50	0.02	20.03	23 18 40.45	4.38	319 36 8.75	45.365	48.6	42.9	−1 25 23.1	29.2
40	B. D. +1° 4724	11	22 1.55	0.02	20.03	23 21 41.50	4.39	322 58 10.62	43.619	43.1	42.9	+1 56 10.8	29.8
41	B. D. −1° 4443	11	24 47.05	0.02	20.03	23 24 27.00	4.40	319 26 9.52	47.584	48.8	43.0	−1 34 40.0	29.2
42	B. D. +2° 4680	11	28 12.54	−0.02	−20.03	23 27 52.49	−4.41	323 52 9.55	43.931	41.7	43.0	+2 50 17.0	−29.9
43	B. D. +0° 5018	11	30 46.28	−0.02	−20.03	23 30 26.23	−4.41	321 48 8.38	43.756	44.9	43.0	+0 46 9.3	−29.6
44	ι Piscium..........	11	35 12.84	0.03	**19.95**	23 34	....	326 6 8.70	47.801	38.3	**43.5**	+5 5	....
45	B. D. −7° 6078	11	40 3.36	0.01	20.03	23 39 43.32	4.43	313 32 8.72	47.171	1 0.0	43.1	−7 29 0.0	28.3
46	B. D. +1° 4773	11	44 6.59	0.02	20.03	23 43 46.54	4.45	322 40 8.88	49.655	43.5	43.1	+1 40 4.2	29.6
47	B. D. +1° 4792	11	48 21.88	0.02	20.03	23 48 1.83	4.46	322 34 8.65	44.996	43.7	43.1	1 32 34.4	29.5
48	B. D. +7° 5101	11	50 55.27	−0.03	−20.03	23 50 35.21	−4.49	328 42 8.28	44.390	34.7	43.1	+7 40 31.4	−30.2
49	27 Piscium........	11	53 57.80	−0.02	−**20.11**	23 53	....	316 54 8.72	49.422	53.4	**42.6**	−4 6	....
50	B. D. +1° 4820	11	58 3.91	0.02	20.03	23 57 43.86	−4.48	322 36 8.68	46.480	43.6	43.2	+1 35 2.9	−29.4
51	33 Piscium........	11	0 37.54	0.02	−**20.02**	0 0	....	314 46 7.42	45.418	57.5	**43.8**	−6 15	....

1900 OCTOBER 15. CLAMP WEST.

EICHELBERGER, OBSERVER. **LAWTON, ASSISTANT.**

52	f Sagittarii........	11	40 59.05	+0.03	−**23.53**	19 40	....	301 2 7.62	46.148	1 32.8	**42.1**	−19 59	....
53	C. P. D. −23° 7590	11	44 45.76	0.03	23.56	19 44 22.23	−3.89	298 0 7.00	47.454	1 44.9	42.1	23 1 40.0	−12.4
54	B. D. 21° 5556	11	47 26.50	+0.03	−23.56	19 47 2.97	−3.86	299 44 6.32	42.386	1 37.8	42.1	−21 19 10.8	−13.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
11 21 21	29.83	58.0	58.9
22 19	29.83	57.5	58.2
23 26	29.82	56.0	55.8
0 2	29.81	55.5	55.9
15 19 36	29.89	67.0	66.7

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

32. Bisections at II, VI, VII.

Note.

Oct. 11. Seeing generally bad, worse toward end of work.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READ-ING.	REFR.	EQUA-TOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	C. P. D. −26° 6880	11	50 10.35	+0.04	−23.56	19 49 46.83	−4.00	294 30 5.62	42.058	2 2.3	42.1	−26 33 42.3	−11.5
2	B. D. −15° 5516	11	52 44.06	0.02	23.57	19 52 20.51	3.76	305 18 6.95	41.490	1 19.1	42.2	15 45 8.8	15.6
3	C. P. D. −24° 6879	9	55 16.43	0.04	23.57	19 54 52.90	3.97	296 34 6.35	48.875	1 51.5	42.2	24 27 21.8	12.7
4	B. D. −22° 5318	11	58 16.23	0.03	23.57	19 57 52.69	3.95	298 10 6.35	45.341	1 44.3	42.2	22 52 20.7	13.5
5	B. D. −20° 5814	11	1 6.00	0.03	23.57	20 0 42.46	3.90	300 36 5.50	47.770	1 34.5	42.3	20 25 25.3	14.6
6	B. D. −21° 5629	11	4 10.28	+0.03	−23.58	20 3 46.73	−3.92	300 10 7.00	43.542	1 36.2	42.3	−20 52 46.6	−14.6
7	C. P. D. −26° 6950	11	7 20.30	+0.04	−23.58	20 6 56.76	−4.07	294 34 6.78	43.706	2 2.0	42.3	−26 29 9.4	12.9
8	C. P. D. −23° 7684	11	10 42.76	0.04	23.58	20 10 19.22	4.02	297 14 7.22	44.402	1 48.6	42.4	23 48 42.3	14.1
9	B. D. −19° 5776	11	14 4.93	0.03	23.58	20 13 41.38	3.93	301 36 6.90	47.072	1 31.0	42.4	19 25 33.9	15.9
10	B. D. −13° 5661	11	19 0.22	0.02	23.58	20 18 36.66	3.83	307 18 7.45	48.536	1 13.6	42.4	13 42 47.9	18.3
11	π Capricorni	11	22 3.40	0.03	**23.62**	20 21	....	302 30 6.45	45.353	1 27.9	**43.0**	18 32	....
12	B. D. −13° 5680	11	24 25.72	+0.02	−23.59	20 24 2.15	−3.84	308 6 5.80	47.534	1 11.5	42.5	−12 55 6.8	−18.9
13	C. P. D. −25° 7104	11	27 22.86	+0.04	−23.59	20 26 59.31	−4.12	295 46 4.40	45.129	1 55.8	42.5	−25 16 38.5	−14.8
14	B. D. −17° 6027	11	30 20.28	0.02	23.59	20 29 56.71	3.94	304 10 8.22	45.674	1 22.6	42.6	16 51 51.2	18.0
15	υ Capricorni	11	34 49.02	0.03	**23.59**	20 34	....	302 34 7.25	41.926	1 27.8	**42.1**	18 29 ...	....
16	B. D. −11° 5408	11	39 37.13	0.02	23.59	20 39 13.56	3.87	310 12 6.98	41.894	1 6.5	42.7	10 50 49.0	20.7
17	B. D. −17° 6089	11	43 3.25	0.02	23.59	20 42 39.68	4.00	304 10 7.82	42.296	1 22.6	42.7	16 52 56.5	18.9
18	B. D. −10° 5526	11	46 48.96	+0.02	−23.59	20 46 25.39	−3.90	310 20 7.35	47.054	1 6.1	42.7	−10 41 9.3	−21.2
19	B. D. −22° 5572	11	51 33.42	+0.03	−23.59	20 51 9.86	−4.14	298 40 6.42	43.098	1 42 4	42.8	−22 23 2.4	−17.6
20	B. D. −19° 5982	11	54 22.85	0.03	23.59	20 53 59.29	4.09	301 38 6.62	42.460	1 31.0	42.8	19 25 3.0	18.8
21	B. D. −10° 5578	11	57 38.34	0.02	23.59	20 57 14.77	3.94	310 38 6.40	47.515	1 5.4	42.8	10 23 0.8	22.0
22	θ Capricorni	11	0 47.23	0.03	**23.59**	21 0	....	303 24 7.10	47.010	1 25.0	**43.1**	17 37	....
23	B. D. −21° 5932	11	3 17.75	0.03	23.59	21 2 54.19	4.17	299 26 6.02	48.028	1 39.1	42.9	21 35 25.0	18.6
24	B. D. − 9° 5674	11	5 50.88	+0.02	−23.59	21 5 27.31	−3.96	311 16 7.80	46.772	1 3.9	42.9	− 9 45 12.3	−22.7
25	B. D. −16° 5827	11	10 29.20	+0.02	−23.59	21 10 5.63	−4.10	304 32 7.42	45.179	1 21.5	43.0	−16 30 0.8	−20.8
26	B. D. −16° 5840	11	14 9.37	0.02	23.59	21 13 45.80	4.11	304 32 7.55	47.784	1 21.7	43.0	16 35 36.9	21.0
27	B. D. − 8° 5634	11	17 4.42	0.01	23.59	21 16 40.84	3.98	313 4 7.82	49.219	1 0.0	43.0	7 56 21.5	23.9
28	B. D. −15° 5983	10	21 24.26	0.02	23.58	21 21 0.70	4.12	305 22 7.52	44.139	1 19.0	43.1	15 40 18.3	21.7
29	B. D. −10° 5696	11	26 40.95	0.02	23.58	21 26 17.39	4.06	310 52 7.25	42.842	1 4.9	43.1	10 10 29.4	23.7
30	B. D. − 9° 5770	11	29 50.20	+0.02	−23.58	21 29 26.64	4.06	311 30 7.35	45.956	1 3.5	43.2	− 9 31 28.3	−24.1
31	ξ Aquarii	11	32 53.30	+0.01	**−23.51**	21 32	....	312 44 6.42	45.005	1 0.8	**43.8**	− 8 17	....
32	B. D. − 9° 5809	11	36 4.95	0.02	23.58	21 35 41.39	−4.08	311 26 6.35	46.440	1 3.6	43.2	9 35 20.1	−24.4
33	B. D. − 8° 5719	11	38 34.85	0.01	23.58	21 38 11.28	4.07	313 10 8.22	45.581	59.9	43.2	7 51 31.0	25.0
34	B. D. −14° 6128	11	43 34.45	0.02	23.58	21 43 10.89	4.18	306 24 7.25	46.955	1 16.2	43.3	14 37 21.9	23.2
35	B. D. −19° 6176	11	46 36.53	0.03	23.58	21 46 12.98	4.26	301 58 6.60	42.699	1 30.0	43.3	19 4 58.0	22.0
36	B. D. −12° 6126	11	50 6.67	+0.02	−23.57	21 49 43.12	−4.17	308 36 7.85	44.134	1 10.4	43.4	−12 26 9.8	−24.2
37	B. D. −15° 6103	11	52 48.69	+0.02	−23.57	21 52 25.14	−4.23	305 26 6.92	46.586	1 19.0	43.4	−15 35 32.2	23.4
38	B. D. −12° 6150	11	56 18.52	0.02	23.57	21 55 54.97	4.19	309 12 6.65	47.780	1 9.0	43.4	11 48 59.7	24.7
39	B. D. −13° 6095	11	59 10.83	0.02	23.57	21 58 47.28	4.22	307 32 7.12	45.462	1 13.2	43.5	13 29 47.9	24.3
40	ι Aquarii	11	1 29.98	0.02	**23.56**	22 1	....	306 42 6.05	42.232	1 15.6	**43.7**	14 20	....
41	B. D. − 9° 5927	11	4 40.76	0.02	23.56	22 4 17.22	4.19	311 44 8.52	47.332	1 3.1	43.5	9 17 0.6	25.8
42	B. D. −18° 6084	11	7 33.37	+0.03	−23.56	22 7 9.84	−4.31	302 32 7.32	42.901	1 28.2	43.5	−18 30 51.8	−23.3
43	B. D. −13° 6148	11	11 54.63	+0.02	−23.56	22 11 31.09	−4.26	307 42 7.12	46.729	1 12.9	43.6	−13 19 23.4	−24.9
44	B. D. − 9° 5963	11	16 2.51	0.02	23.56	22 15 38.97	4.22	311 46 6.62	45.524	1 3.1	43.6	9 15 37.3	26.2
45	B. D. − 6° 5996	11	23 6.15	0.01	23.55	22 22 42.61	4.22	314 36 7.42	48.731	57.2	43.7	6 24 29.2	27.2
46	B. D. − 5° 5806	11	25 42.95	0.01	23.55	22 25 19.41	4.22	315 42 8.30	45.785	55.0	43.7	5 19 22.6	27.6
47	B. D. −17° 6554	11	31 12.26	0.02	23.54	22 30 48.74	4.34	304 8 7.42	45.675	1 23.1	43.8	16 53 53.7	24.7
48	B. D. −10° 5963	11	34 28 17	+0.02	−23.54	22 34 4.65	−4.29	310 28 6.45	49.359	1 6.1	43.8	−10 32 27.1	−26.5
49	τ Aquarii	11	44 45.83	+0.02	**−23.60**	22 44	....	306 54 7.05	48.700	1 15.1	**43.3**	−14 6	....
50	B. D. −12° 6371	11	48 40.76	0.02	23.52	22 48 17.26	−4.34	308 52 7.65	49.510	1 10.0	44.0	12 8 27.1	−26.5
51	B. D. − 2° 5876	11	59 37.39	0.01	23.51	22 59 13.89	4.32	318 36 7.78	44.002	49.8	44.1	2 25 52.6	29.0
52	B. D. −12° 6426	11	2 38.30	0.02	23.51	23 2 14.81	4.38	308 40 7.50	49.794	1 10.5	44.1	12 20 22.4	26.8
53	B. D. − 1° 4401	11	7 1.31	0.01	23.51	23 6 37.81	4.34	319 20 7.72	49.239	48.5	44.1	1 40 10.9	29.2
54	B. D. −12° 6453	11	10 35.95	+0.02	−23.50	23 10 12.47	−4.39	308 54 8.45	50.432	1 9.9	44.2	−12 6 8.7	−27.0
55	B. D. − 9° 6160	11	13 10.42	+0.02	−23.50	23 12 46.94	−4.38	311 18 7.52	46.706	1 4.3	44.2	− 9 43 15.5	−27.6
56	B. D. − 6° 6191	11	15 59.42	0.01	23.49	23 15 35.94	4.38	314 34 7.38	47.872	57.3	44.2	6 26 46.3	28.3
57	B. D. −10° 6105	11	18 33.96	0.02	23.49	23 18 10.49	4.40	311 6 7.48	45.814	1 4.7	44.3	− 9 55 33.1	27.6
58	κ Piscium	11	22 16.21	0.00	**23.45**	23 21	....	321 44 8.82	46.360	44.6	**44.0**	+ 0 42	....
59	B. D. − 7° 6036	11	26 19.58	0.01	23.48	23 25 56.11	4.40	314 12 7.80	44.465	58.1	44.3	− 6 49 52.1	28.3
60	B. D. − 3° 5661	10	29 1.12	+0.01	−23.47	23 28 37.66	−4.41	318 14 7.72	45.866	50.5	44.4	− 2 47 17.9	−29.1

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
15 20 31	29.88	64.7	64.8
21 23	29.88	63.5	65.1
22 13	29.88	62.0	62.8
23 3	29.88	61.0	61.9

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

3. Bisections at VI, VII.
11. Bisections at II, VI, VII.
26. Z. D. Thread C used.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	$\Delta T \cdot m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. + 1° 4744	11	31 44.92	0.00	−23.47	23 31 21.45	−4.42	322 34 8.65	47.421	43.2	44.4	+ 1 33 20.1	−29.8
2	B. D. − 1° 4469	11	35 4.96	0.01	23.46	23 34 41.51	4.42	319 44 7.98	46.105	47.9	44.4	− 1 17 10.4	29.3
3	λ Piscium	11	37 24.47	0.00	**23.41**	23 37	....	322 16 8.12	44.175	43.7	**44.9**	+ 1 14	....
4	B. D. + 6° 5197	11	40 10.60	0.00	23.46	23 39 47.14	4.46	327 40 6.55	45.231	35.8	44.5	6 38 43.3	30.5
5	B. D. − 7° 6086	11	43 51.99	+0.01	−23.45	23 43 28.55	−4.44	314 6 7.12	45.098	58.3	44.5	6 55 41.1	−28.3
6	B. D. − 3° 5723	11	48 15.23	0.01	−23.44	23 47 51.80	−4.45	317 18 8.90	49.388	52.1	44.6	− 3 42 10.9	−28.8
7	B. D. + 2° 4736	11	52 26.77	0.00	23.43	23 52 3.34	4.48	323 32 9.65	47.442	41.8	44.6	+ 2 31 22.7	29.7
8	B. D. − 1° 4514	11	55 7.11	0.00	23.43	23 54 43.68	4.48	320 12 8.18	44.412	47.1	44.6	− 0 49 42.1	29.2
9	B. D. + 1° 4820	11	58 7.29	0.01	23.42	23 57 43.88	−4.49	322 36 7.68	46.561	43.2	44.7	+ 1 35 2.4	−29.5
10	33 Piscium	11	0 40.97	+0.01	**−23.49**	0 0	....	314 46 6.00	45.499	57.0	**44.1**	− 6 15	....

1900 OCTOBER 16. CLAMP WEST.

EICHELBERGER, OBSERVER. **LAWTON, ASSISTANT.**

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	$\Delta T \cdot m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
11	*h* Sagittarii	7	31 5.49	+0.04	**−24.34**	19 30	....	295 56 7.52	46.752	1 54.3	**43.4**	−25 6	....
12	B. D. −21° 5522	11	42 34.44	0.04	24.32	19 42 10.16	−3.82	299 50 7.90	45.930	1 37.4	43.3	21 12 2.1	−12.8
13	C. P. D. −27° 6855	11	45 28.69	0.05	24.32	19 45 4.42	4.00	293 18 8.20	49.768	2 9.2	43.3	27 43 20.3	10.7
14	B. D. −18° 5520	11	48 5.83	0.03	24.32	19 47 41.54	3.78	302 52 7.42	46.204	1 26.6	43.3	18 9 46.5	14.3
15	C. P. D. −23° 7614	11	51 10.48	0.04	24.31	19 50 46.21	3.91	297 42 6.55	47.845	1 46.4	43.3	23 19 35.7	12.7
16	B. D. −18° 5553	11	53 45.34	+0.03	24.31	19 53 21.06	−3.80	302 48 6.60	47.068	1 26.9	43.3	−18 13 31.1	−14.7
17	B. D. −17° 5832	11	56 17.04	+0.03	−24.30	19 55 52.77	−3.79	303 54 4.98	44.525	1 23.4	43.3	−17 8 18.0	−15.3
18	C. P. D. −27° 6933	11	59 34.27	0.04	24.30	19 59 10.01	4.04	293 56 6.35	48.952	2 5.7	43.3	27 5 33.9	12.0
19	B. D. −14° 5648	11	3 26.85	0.02	24.29	20 3 2.58	3.76	306 30 6.30	43.801	1 15.9	43.2	14 32 23.0	16.8
20	B. D. −15° 5576	11	6 7.14	0.03	24.29	20 5 42.88	3.80	305 14 6.92	47.520	1 19.5	43.2	15 47 15.3	16.5
21	C. P. D. −27° 6972	11	9 31.55	0.04	24.29	20 9 7.30	−4.09	293 42 6.70	48.664	2 7.3	43.2	27 19 40.6	−12.7
22	4 Capricorni	11	12 37.23	+0.04	**−24.38**	20 12	....	298 56 6.15	43.561	1 41.6	**42.9**	−22 6	....
23	β Capricorni	11	15 51.73	+0.03	**−24.30**	20 15	....	305 56 7.52	46.475	1 17.6	**43.6**	15 5	....
24	B. D. 19° 5809	11	19 46.42	0.03	24.28	20 19 22.17	−3.95	301 18 8.15	42.080	1 32.6	43.2	19 45 10.8	−16.2
25	B. D. −14° 5753	11	22 56.56	0.02	24.27	20 22 32.31	3.85	306 42 9.50	46.960	1 15.6	43.2	14 19 18.9	18.3
26	B. D. 15° 5696	11	25 56.34	0.03	24.27	20 25 32.10	3.88	305 38 8.58	47.754	1 18.6	43.2	15 23 7.6	18.1
27	B. D. −18° 5714	11	30 11.18	0.03	24.27	20 29 46.94	3.96	302 54 8.10	(46)862	1 27.1	43.2	18 7 33.7	17.5
28	B. D. −11° 5379	11	32 55.94	+0.02	−24.27	20 32 31.69	−3.83	309 38 7.98	49.095	1 8.1	43.2	11 22 32.0	−20.0
29	B. D. −14° 5815	11	36 8.60	+0.02	−24.26	20 35 44.36	−3.90	307 10 7.48	48.088	1 14.5	43.2	13 50 58.2	−19.4
30	B. D. −14° 5839	11	39 27.78	0.02	24.26	20 39 3.54	3.92	306 30 7.15	43.545	1 16.4	43.2	14 32 27.6	19.4
31	ε Aquarii	11	42 43.75	0.02	**24.13**	20 42	....	311 10 7.48	46.341	1 4.7	**43.0**	9 51	....
32	B. D. −14° 5866	11	46 14.75	0.02	24.26	20 45 50.51	3.95	306 44 7.60	46.656	1 15.8	43.2	14 17 26.8	19.9
33	B. D. 15° 5833	11	49 49.89	0.03	24.26	20 49 25.66	3.99	305 22 6.70	46.955	1 19.7	43.2	15 39 25.9	19.7
34	B. D. 16° 5741	11	52 33.06	+0.03	−24.25	20 52 8.84	−4.01	304 38 6.75	43.271	1 21.9	43.2	−16 24 38.7	−19.6
35	C. P. D. −23° 7896	11	56 5.06	+0.04	−24.25	20 55 40.85	−4.17	297 34 7.25	47.028	1 48.2	43.2	23 27 52.4	−17.4
36	B. D. 20° 6115	11	59 11.15	0.03	24.25	20 58 46.93	4.11	300 46 6.92	49.991	1 34.9	43.2	20 14 42.6	18.8
37	B. D. −22° 5612	11	2 38.51	0.04	24.25	21 2 14.30	4.18	298 18 6.72	46.742	1 45.0	43.2	22 43 55.2	18.1
38	C. P. D. −23° 7931	11	5 21.29	0.04	24.25	21 4 57.08	4.21	297 20 5.75	44.748	1 49.4	43.2	23 42 38.8	18.0
39	B. D. −22° 5630	11	8 45.50	0.04	24.25	21 8 21.29	4.20	298 26 5.75	43.002	1 44.6	43.2	22 37 7.5	18.6
40	B. D. −19° 6065	11	13 2.46	+0.03	−24.24	21 12 38.25	−4.14	301 56 6.85	45.681	1 31.0	43.2	−19 6 1.4	−20.0
41	B. D. −20° 6192	11	16 13.11	+0.03	−24.24	21 15 48.90	−4.17	301 4 7.08	49.692	1 34.0	43.2	−19 56 47.3	19.9
42	B. D. −21° 6007	11	18 57.84	0.03	24.24	21 18 33.63	4.20	299 46 7.15	45.290	1 39.2	43.2	21 16 16.8	19.7
43	B. D. −11° 5598	11	21 30.81	0.02	24.24	21 21 6.59	4.04	309 40 8.00	49.011	1 8.5	43.2	11 20 34.0	23.0
44	β Aquarii	11	26 45.87	0.01	**24.20**	21 26	....	315 0 9.12	49.321	56.9	**43.8**	6 0	....
45	B. D. −14° 6080	11	31 45.09	0.02	24.24	21 31 20.87	4.12	307 8 8.[illegible]8	44.891	1 15.2	43.3	13 53 59.6	22.8
46	B. D. −11° 5640	11	34 33.96	+0.02	−24.24	21 34 9.74	−4.09	310 0 8.58	46.842	1 7.9	43.3	−11 1 14.5	−23.8
47	B. D. −12° 6065	11	37 4.33	+0.02	−24.24	21 36 40.11	4.12	308 20 8.88	44.948	1 12.2	43.3	−12 41 54.8	−23.4
48	B. D. − 9° 5829	11	40 8.65	0.02	24.24	21 39 44.43	4.09	311 28 8.70	50.239	1 4.6	43.3	9 32 6.0	24.6
49	B. D. − 6° 5827	11	42 50.65	0.01	24.24	21 42 26.42	4.06	314 38 9.25	48.965	57.8	43.3	6 22 23.1	25.6
50	B. D. −21° 6102	11	45 44.12	0.03	24.23	21 45 19.92	4.28	300 2 7.38	45.736	1 38.6	43.3	21 0 7.5	21.3
51	B. D. −14° 6150	11	48 24.29	0.02	24.23	21 48 0.08	4.19	306 22 8.28	47.448	1 17.6	43.3	14 39 12.9	23.4
52	B. D. −19° 6190	11	52 1.16	+0.03	−24.23	21 51 36.96	−4.28	301 22 7.60	47.286	1 33.7	43.3	−19 39 32.7	−22.1
53	B. D. −13° 6074	11	56 10.21	+0.02	−24.23	21 55 46.00	−4.20	307 32 8.42	45.266	1 14.5	43.3	−13 29 51.5	−24.1
54	B. D. − 8° 5789	11	58 44.16	0.02	24.23	21 58 19.95	−4.14	313 6 9.12	43.695	1 1.3	43.3	7 56 7.8	−25.9
55	ι Aquarii	11	1 30.68	+0.02	**−24.27**	22 1	....	306 42 9.02	42.140	1 16.9	**43.7**	−14 20	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
15 0 1	29.86	60.3	61.3
16 19 28	(29.75)	68.5	65.2
20 27	29.78	63.0	60.2
21 22	29.815	59.5	57.0

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

11. Bisections at VI, VII.
13. Bisections at I, VI, VII.
20. Bisections at II, VI, VII.

Note.

Oct. 16. The barometer reading for 19^h 28^m was recorded $29^{in}.85$.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT+m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. − 8° 5818	11	4 41.67	+0.02	−24.23	22 4 17.46	−4.16	313 0 8.40	46.752	1 1.5	43.3	− 8 1 10.1	−26.1
2	B. D. −14° 6229	11	7 30.75	0.02	24.23	22 7 6.54	4.25	306 22 8.02	42.641	1 17.9	43.4	14 40 45.7	24.3
3	B. D. −17° 6478	11	11 18.82	0.03	24.23	22 10 54.62	4.30	303 20 8.20	46.131	1 27.2	43.4	17 41 47.9	23.6
4	B. D. −12° 6243	11	15 24.32	0.02	24.23	22 15 0.11	4.25	308 18 8.92	47.872	1 12.7	43.4	12 42 59.3	25.2
4	B. D. −10° 5904	10	19 18.69	0.02	24.23	22 18 54.48	4.24	310 20 9.38	45.135	1 7.7	43.4	10 41 46.3	25.9
6	B. D. − 9° 5978	11	21 59.73	+0.02	−24.23	22 21 35.52	−4.23	312 0 9.92	48.161	1 3.8	43.4	− 9 0 43.9	−26.4
7	B. D. −15° 6231	11	25 24.37	+0.02	24.23	22 25 0.16	−4.30	305 56 9.42	46.870	1 19.3	43.4	−15 5 24.6	−24.9
8	κ Aquarii	11	33 3.14	0.01	**24.23**	22 32	. . . .	316 16 10.08	49.439	55.0	**43.0**	4 44	. . . .
9	B. D. − 6° 6074	11	43 34.45	0.01	24.23	22 43 10.23	4.28	314 44 9.40	46.278	58.1	43.6	6 17 15.1	27.8
10	B. D. −13° 6318	11	54 48.39	0.02	24.23	22 54 24.18	4.36	307 26 8.32	44.989	1 15.3	43.6	13 35 58.0	26.2
11	B. D. − 7° 5913	11	57 49.68	0.01	24.23	22 57 25.46	4.33	313 54 8.40	49.724	59.9	43.7	− 7 6 11.9	27.8
12	B. D. + 0° 4963	11	0 39.18	+0.01	−24.23	23 0 14.96	−4.31	321 48 7.80	45.190	45.4	43.7	− 0 46 35.0	−29.6
13	B. D. − 6° 6147	11	3 8.49	+0.01	−24.23	23 2 44.27	−4.34	314 48 6.90	44.539	58.1	43.7	− 6 13 51.0	−28.1
14	B. D. − 6° 6157	11	5 57.54	0.01	24.23	23 5 33.32	4.35	314 32 6.05	45.051	58.7	43.7	6 29 42.6	28.1
15	B. D. 3° 5592	11	9 26.37	0.01	24.23	23 9 2.15	4.35	317 50 0.32	49.562	52.3	43.7	3 10 15.5	28.9
16	ψ_3 Aquarii	11	14 14.25	0.02	**24.26**	23 13	. . . . . .	310 52 8.08	47.616	1 6.7	**44.0**	10 8	. . . .
17	B. D. −11° 6064	11	18 18.67	0.02	24.23	23 17 54.46	4.40	309 42 8.18	48.490	1 9.5	43.8	−11 18 45.4	−27.2
18	κ Piscium	11	22 16.94	+0.01	**−24.20**	23 21	. . . .	321 44 9.05	46.388	45.6	**43.7**	+ 0 42	. . . .
19	B. D. + 0° 5009	11	26 2.11	+0.01	24.23	23 25 37.89	4.40	321 22 8.90	43.571	46.2	43.9	+ 0 20 4.1	−29.6
20	B. D. − 5° 6011	11	28 48.33	0.01	24.23	23 28 24.11	4.41	316 4 8.65	47.826	55.7	43.9	− 4 56 44.0	28.6
21	B. D. − 9° 6220	11	31 19.31	0.01	24.23	23 30 55.09	4.42	311 42 9.28	48.550	1 4.9	43.9	9 18 38.7	27.8
22	B. D. − 6° 6256	11	35 10.65	0.01	24.23	23 34 46.43	4.42	314 56 9.80	45.308	58.0	44.0	6 5 33.6	28.4
23	B. D. − 2° 6021	11	37 42.46	+0.01	24.23	23 37 18.24	4.43	318 58 9.85	47.154	50.4	44.0	− 2 2 50.6	29.2
24	B. D. + 2° 4709	11	41 45.55	0.00	−24.23	23 41 21.32	−4.45	323 58 10.92	44.344	42.1	44.0	+ 2 56 24.9	−30.0
25	B. D. + 0° 5054	11	44 48.90	+0.01	−24.23	23 44 24.68	−4.45	321 32 10.40	48.704	46.0	44.1	+ 0 31 44.0	−29.6
26	B. D. + 2° 4725	11	47 19.39	0.00	24.24	23 46 55.15	4.47	323 24 7.85	46.266	43.0	44.1	+ 2 22 57.7	29.8
27	B. D. − 0° 4585	11	50 8.19	0.01	24.24	23 49 43.96	4.46	320 34 8.15	48.678	47.6	44.1	− 0 26 20.3	29.3
28	B. D. − 6° 6335	11	55 1.65	0.01	24.24	23 54 37.42	4.46	314 34 7.60	48.956	58.8	44.2	− 6 26 26.8	28.3
29	B. D. + 7° 5121	11	57 51.75	0.00	24.24	23 57 27.51	−4.53	328 58 8.72	43.716	34.9	44.2	+ 7 56 17.6	−30.4
30	33 Piscium	11	0 41.72	+0.01	**−24.24**	0 0	. . . .	314 46 8.62	45.439	58.5	**44.1**	− 6 15	. . . .

1900 OCTOBER 17. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT+m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
31	*h* Sagittarii	11	31 6.15	−0.02	**−24.95**	19 30	. . . .	295 56 7.60	46.837	1 59.2	**41.3**	−25 6	. . . .
32	*f* Sagittarii	11	41 0.23	0.02	**24.69**	19 40	. . . .	301 2 7.98	46.272	1 36.6	**41.1**	19 59	. . . .
33	C. P. D. −27° 6855	11	45 29.24	0.02	24.81	19 45 4.41	−3.98	293 20 7.00	43.749	2 14.3	41.3	27 43 19.6	−10.6
34	B. D. −18° 5520	11	48 6.30	0.02	24.81	19 47 41.47	3.76	302 52 6.22	46.361	1 30.0	41.4	18 9 46.2	14.2
35	C. P. D. −23° 7614	11	51 11.02	0.02	24.81	19 50 46.19	3.89	297 42 8.52	47.862	1 50.5	41.4	23 19 35.6	12.6
36	B. D. −15° 5564	11	3 19.44	−0.03	−24.81	20 2 54.60	−3.76	305 44 9.02	42.475	1 21.0	41.6	−15 18 49.2	−16.4
37	B. D. −22° 5354	11	6 0.26	−0.02	−24.81	20 5 35.43	−3.93	298 48 8.95	44.461	1 45.7	41.7	−22 14 35.9	−14.2
38	B. D. −20° 5870	11	10 56.06	0.02	24.81	20 10 31.23	3.91	300 42 9.15	47.630	1 37.7	41.7	20 19 26.9	15.2
39	C. P. D. −25° 7042	11	14 15.18	0.02	24.81	20 13 50.35	4.04	295 30 8.95	47.080	2 1.6	41.8	25 32 1.6	13.6
40	B. D. −16° 5581	11	17 21.85	0.03	24.81	20 16 57.01	3.86	304 12 8.75	45.051	1 25.6	41.8	16 50 4.8	16.9
41	C. P. D. −25° 7071	11	20 45.85	0.02	24.81	20 20 21.02	4.06	295 46 7.45	46.839	2 0.2	41.9	25 16 6.5	14.2
42	B. D. −16° 5609	11	23 34.35	−0.02	−24.81	20 23 9.52	−3.87	304 58 8.45	45.050	1 23.3	41.9	−16 4 3.0	−17.6
43	B. D. −17° 6007	11	26 8.57	−0.02	−24.81	20 25 43.74	−3.91	303 34 7.18	44.931	1 27.7	42.0	−17 28 11.0	−17.4
44	C. P. D. −23° 7796	11	28 43.35	0.02	24.81	20 28 18.52	4.06	297 28 6.52	43.060	1 51.8	42.0	23 35 11.6	15.4
45	B. D. −12° 5778	11	31 14.35	0.03	24.81	20 30 49.51	3.84	308 18 7.48	46.920	1 13.8	42.0	12 43 18.7	19.4
46	υ Capricorni	11	34 50.28	0.02	**24.83**	20 34	. . . .	302 34 7.72	42.050	1 31.2	**41.6**	18 29	. . . .
47	B. D. −19° 5905	11	38 40.56	0.02	24.81	20 38 15.73	−4.01	301 20 7.30	46.329	1 35.6	42.1	19 41 52.1	−17.5
48	ε Aquarii	11	42 44.42	−0.03	**−24.77**	20 42	. . . .	311 10 8.48	46.374	1 6.7	**42.7**	− 9 51	. . . .
49	B. D. −13° 5773	11	45 39.80	−0.03	−24.81	20 45 14.96	−3.90	308 8 8.55	42.915	1 14.3	42.2	−12 54 35.1	−20.3
50	C. P. D. −24° 7109	11	48 37.84	0.02	24.81	20 48 13.01	4.15	296 24 7.35	43.246	1 57.1	42.3	24 39 12.8	16.4
51	B. D. −12° 5890	11	57 1.36	0.03	24.81	20 56 36.52	3.94	308 56 8.40	48.026	1 12.2	42.4	12 4 55.4	21.3
52	B. D. −13° 5857	11	3 15.43	0.03	24.81	21 2 50.59	3.98	307 46 8.22	42.780	1 15.3	42.4	13 16 39.3	21.3
53	B. D. −15° 5908	11	6 38.75	0.03	24.81	21 6 13.91	4.03	306 10 8.02	43.451	1 19.8	42.5	14 52 31.2	20.9
54	B. D. −15° 5935	11	10 41.66	−0.03	−24.81	21 10 16.82	−4.05	305 28 7.65	42.484	1 21.9	42.5	−15 34 52.2	−21.0

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
16 22 12	29.86	56.0	52.8
23 7	29.89	53.5	51.0
0 2	29.91	51.5	49.1
17 19 29	30.05	53.0	49.3
20 18	30.04	51.5	48.8
20 57	30.03	50.5	48.2

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

31. Bisections at II, VI, VII.

Note.

Oct. 16. Seeing good at end, poor for most part at first; clouds.

No.	Name.	Thds.	Mean Thread.	c sec δ + n tan δ	ΔT+m	Apparent R. A.	Red. to 1900.0	Circle Reading.	Microm. Reading.	Refr.	Equator Point.	Apparent Decl.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. 13° 5901	11	13 34.73	−0.03	−24.81	21 13 9.89	−4.02	308 2 9.05	43.066	1 14.7	42.5	−13 0 32.4	−22.0
2	B. D. −15° 5958	11	16 27.44	0.03	24.81	21 16 2.60	4.08	305 28 8.60	43.799	1 21.9	42.6	15 34 26.1	21.3
3	B. D. −13° 5923	11	19 12.57	0.03	24.81	21 18 47.73	4.05	307 44 9.75	44.581	1 15.5	42.6	13 18 3.6	22.2
4	B. D. 20° 6211	11	22 19.83	0.02	24.82	21 21 54.99	4.19	300 24 8.35	45.062	1 39.4	42.6	20 38 19.6	20.0
5	B. D. 9° 5758	11	25 6.80	0.03	24.82	21 24 41.95	4.01	311 58 9.32	(50)584	1 4.9	42.6	9 1 58.3	23.9
6	B. D. −15° 6005	11	27 40.47	−0.03	−24.82	21 27 15.62	−4.11	306 6 8.78	50.742	1 20.0	42.7	−14 54 11.0	−22.2
7	B. D. −10° 5714	11	32 1.78	−0.03	−24.82	21 31 36.93	−4.06	310 24 8.55	47.792	1 8.7	42.7	−10 36 56.5	−23.8
8	B. D. −13° 5985	11	34 42.07	0.03	24.82	21 34 17.22	4.10	307 58 8.82	44.442	1 14.9	42.7	13 4 6.7	23.1
9	B. D. −20° 6270	11	38 6.99	0.02	24.82	21 37 42.15	4.23	300 58 8.02	45.049	1 37.3	42.7	20 4 18.2	21.1
10	δ Capricorni......	11	42 0.40	0.03	**24.85**	21 41	....	304 28 8.80	43.781	1 25.2	**43.0**	16 34	....
11	B. D. −12° 6104	11	45 18.04	0.03	24.82	21 44 53.19	4.12	309 14 8.40	44.164	1 11.7	42.8	11 48 9.3	24.1
12	B. D. −10° 5785	11	48 44.17	−0.03	−24.82	21 48 19.32	−4.12	310 14 8.42	49.072	1 9.1	42.8	−10 46 32.6	−24.5
13	B. D. − 9° 5876	11	52 50.14	−0.03	−24.82	21 52 25.29	−4.12	312 0 8.88	44.256	1 5.0	42.8	− 9 2 0.4	−25.2
14	B. D. 15° 6119	11	56 31.13	0.03	24.82	21 56 6.28	4.20	306 14 9.08	45.116	1 19.9	42.9	14 47 58.7	23.7
15	B. D. −16° 6012	11	59 14.46	0.03	24.82	21 58 49.61	4.24	304 24 8.72	44.091	1 25.5	42.9	16 38 24.3	23.3
16	B. D. −18° 6075	11	3 15.03	0.02	24.83	22 2 50.18	4.27	302 44 8.58	42.751	1 31.1	42.9	18 18 55.7	22.9
17	B. D. − 5° 5732	11	8 0.25	0.03	24.83	22 7 35.39	4.14	315 48 9.05	48.906	57.0	42.9	5 12 23.2	27.0
18	B. D. − 6° 5960	10	12 22.26	−0.03	−24.83	22 11 57.40	−4.16	315 8 8.80	47.852	58.4	43.0	− 5 52 45.2	−26.9
19	B. D. − 6° 5972	11	16 38.78	−0.03	−24.83	22 16 13.92	−4.18	314 16 9.40	49.209	1 0.1	43.0	− 6 44 20.2	−26.8
20	B. D. −18° 6114	11	19 37.63	0.02	24.83	22 19 12.78	4.31	302 56 8.70	46.968	1 30.4	43.0	18 5 34.1	23.7
21	B. D. − 6° 5996	11	23 7.42	0.03	24.83	22 22 42.56	4.20	314 36 8.25	48.775	59.5	43.0	6 24 29.1	27.1
22	σ Aquarii........	11	25 50.45	0.03	**24.81**	22 25	....	309 50 8.18	47.875	1 10.3	**42.9**	11 10	....
23	B. D. − 8° 5912	11	33 36.54	0.03	24.83	22 33 11.68	4.26	312 36 8.52	48.665	1 3.8	43.0	8 24 35.2	26.9
24	B. D. − 8° 5952	11	43 38.12	−0.03	−24.84	22 43 13.25	−4.29	312 24 8.55	44.368	1 4.3	43.1	− 8 37 58.2	−27.1
25	λ Aquarii..........	11	47 53.04	−0.03	−**24.85**	22 47	....	312 54 8.60	49.674	1 3.1	**42.9**	− 8 6	....
26	B. D. −14° 6370	11	51 22.39	0.03	24.84	22 50 57.52	−4.35	306 56 8.40	48.521	1 18.0	43.1	14 4 52.4	−26.0
27	B. D. − 8° 5991	11	54 16.05	0.03	24.84	22 53 51.18	4.32	312 16 9.50	48.978	1 4.6	43.1	8 44 29.2	27.3
28	B. D. − 5° 5910	11	56 50.37	0.03	24.84	22 56 25.50	4.31	315 46 9.05	48.674	57.1	43.1	5 14 28.0	28.2
29	B. D. −12° 6413	11	59 44.75	0.03	24.84	22 59 19.88	4.36	308 18 9.82	48.998	1 14.2	43.1	12 42 38.0	26.5
30	B. D. − 3° 5576	11	4 24.35	−0.04	−24.84	23 3 59.47	−4.32	318 2 9.30	46.166	52.8	43.1	− 2 59 11.5	−28.8
31	B. D. −12° 6444	11	7 15.14	−0.03	−24.85	23 6 50.26	−4.37	308 32 10.42	50.521	1 13.6	43.1	−12 28 7.6	−26.7
32	B. D. − 5° 5957	11	10 39.76	0.03	24.85	23 10 14.88	4.35	315 56 9.20	49.395	56.8	43.1	5 4 13.7	28.4
33	B. D. − 12° 6468	11	14 18.45	0.03	24.85	23 13 53.57	4.39	308 18 9.58	49.146	1 14.2	43.1	12 42 35.4	26.8
34	B. D. −10° 6098	11	17 8.67	0.03	24.85	23 16 43.79	4.38	310 42 9.62	50.336	1 8.2	43.1	−10 18 6.6	27.4
35	B. D. + 2° 4663	11	19 39.65	0.04	24.85	23 19 14.76	−4.37	324 10 10.72	50.965	42.4	43.1	+ 3 10 32.3	−30.2
36	κ Piscium........	11	22 17.56	−0.04	−**24.77**	23 21	....	321 44 7.62	46.445	46.3	**43.3**	+ 0 42	....
37	B. D. + 1° 4731	11	26 28.63	−0.04	−24.85	23 26 3.74	−4.39	322 50 8.95	47.274	44.5	43.1	+ 1 49 17.6	−29.9
38	B. D. − 2° 5986	11	29 29.75	0.04	24.85	23 29 4.86	4.40	319 14 9.15	45.095	50.6	43.1	− 1 47 30.0	29.2
39	B. D. − 4° 5036	10	35 40.94	0.04	24.86	23 35 16.04	4.43	325 16 8.90	48.060	40.7	43.1	+ 4 15 36.4	30.3
40	B. D. − 3° 5697	10	39 53.79	0.03	24.86	23 39 28.90	4.43	317 18 8.78	(45)879	54.2	43.1	3 43 18.9	28.8
41	B. D. − 3° 5707	11	43 17.35	0.03	24.86	23 42 52.46	4.44	317 42 9.30	48.119	53.4	43.1	3 18 34.7	28.9
42	B. D. − 6° 6303	11	47 6.55	−0.03	−24.86	23 46 41.66	−4.44	314 48 8.70	45.038	59.1	43.1	− 6 13 40.0	−28.4
43	B. D. + 2° 4728	11	49 41.32	−0.04	−24.86	23 49 16.42	−4.47	324 10 9.22	42.709	42.4	43.0	+ 3 7 52.5	−29.9
44	B. D. + 3° 4909	11	52 9.23	0.04	24.86	23 51 44.33	4.48	325 12 9.15	44.886	40.8	43.0	+ 4 10 35.8	30.0
45	B. D. − 2° 6071	11	54 55.98	0.04	24.86	23 54 31.08	−4.47	318 38 8.78	43.704	51.7	43.0	− 2 23 58.1	−29.0
46	30 Piscium	11	57 19.27	0.03	**24.90**	23 56	....	314 28 8.02	44.915	59.8	**42.4**	6 33	....
47	33 Piscium	11	0 42.41	−0.03	−**24.89**	0 0	....	314 46 8.18	45.465	59.2	**43.4**	− 6 15	....

1900 OCTOBER 18. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	c sec δ + n tan δ	ΔT+m	Apparent R. A.	Red. to 1900.0	Circle Reading.	Microm. Reading.	Refr.	Equator Point.	Apparent Decl.	Red. to 1900.0
48	h Sagittarii	11	31 6.63	−0.02	−**25.45**	19 30	....	295 56 6.98	46.631	1 55.0	**41.6**	−25 6	....
49	f Sagittarii	11	41 0.96	0.03	**25.43**	19 40	....	301 2 6.72	46.142	1 33.2	**40.9**	19 59	....
50	B. D. −19° 5721	11	2 55.70	0.03	25.40	20 2 30.27	−3.82	301 56 6.95	47.728	1 30.0	41.3	19 5 19.2	−15.0
51	C. P. D. 24° 6922	11	5 59.31	0.02	25.40	20 5 33.89	3.97	296 32 6.68	43.299	1 52.3	41.3	24 31 6.6	13.3
52	B. D. −22° 5372	11	8 54.49	0.03	25.40	20 8 29.06	3.93	298 42 7.00	45.671	1 42.5	41.3	22 20 11.0	14.3
53	B. D. −21° 5669	11	11 26.44	−0.03	−25.39	20 11 1.02	−3.91	299 48 6.50	45.538	1 38.0	41.3	−21 14 9.6	−14.9

Time.			Barom.	Att. Ther.	Ext. Ther.
d	h	m	in.	°	°
17	21	49	30.03	48.5	46.6
	22	30	30.03	47.0	45.3
	23	11	30.03	47.0	45.3
	0	2	30.02	46.0	45.1
18	19	27	29.78	63.5	63.0

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

36. Bisections at I, II, VI.

Notes.

31. Close double; mean observed.
40. Micrometer reading changed one revolution to agree with Oct. 27, which agrees with second Washington catalogue.
Oct. 17. Seeing good throughout.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT : m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −17° 5936	11	14 29.85	0.03	−25.39	20 14 4.43	−3.85	303 14 6.42	46.079	1 25.8	41.3	−17 47 47.1	−16.3
2	B. D. −22° 5419	11	18 58.71	0.03	25.38	20 18 33.30	3.97	298 40 6.50	46.182	1 42.6	41.3	22 22 1.8	15.0
3	B. D. −21° 5719	11	21 31.48	0.03	25.38	20 21 6.07	3.95	299 54 5.48	46.448	1 37.6	41.3	21 7 52.8	15.6
4	B. D. −22° 5442	11	24 8.74	0.03	25.38	20 23 43.33	4.00	298 20 5.30	42.896	1 44.1	41.3	22 43 7.5	15.3
5	B. D. −19° 5852	11	29 12.02	0.03	25.37	20 28 46.62	3.95	301 18 6.48	45.502	1 32.3	41.3	19 44 4.6	16.7
6	B. D. −22° 5484	10	32 22.07	−0.03	25.37	20 31 56.67	4.03	298 14 5.80	48.899	1 44.4	41.3	−22 47 12.2	−15.8
7	υ Capricorni	11	34 50.81	−0.03	**25.37**	20 34	....	302 34 2.20	42.110	1 28.0	**41.0**	−18 29	....
8	B. D. −13° 5736	11	37 36.04	0.03	25.36	20 37 10.65	−3.86	307 36 8.32	42.945	1 13.1	41.3	13 26 32.7	−19.5
9	B. D. −16° 5690	11	40 7.38	0.03	25.36	20 39 41.99	3.92	304 52 7.08	47.192	1 20.6	41.3	16 9 20.0	18.7
10	ε Aquarii	11	42 44.90	0.04	**25.25**	20 42	....	311 10 7.82	46.258	1 4.3	**42.2**	9 51	....
11	B. D. −11° 5484	11	54 17.72	0.04	25.35	20 53 52.33	3.89	309 56 7.90	45.295	1 7.2	41.4	11 5 42.3	21.4
12	B. D. −16° 5769	11	57 29.94	−0.03	−25.35	20 57 4.56	−3.99	305 10 6.62	46.302	1 19.8	41.4	−15 51 36.8	−20.0
13	B. D. −19° 6024	11	2 19.40	−0.03	25.35	21 1 54.02	−4.08	301 34 6.25	42.648	1 31.5	41.4	19 28 58.9	−19.0
14	B. D. −10° 5619	11	5 49.51	0.04	25.35	21 5 24.12	3.93	310 24 8.05	48.642	1 6.1	41.4	10 36 36.8	22.2
15	B. D. −16° 5840	11	14 11.25	0.03	25.34	21 13 45.88	4.07	304 26 7.58	46.334	1 22.0	41.5	16 35 37.5	20.7
16	B. D. − 8° 5634	11	17 6.26	0.04	25.34	21 16 40.88	3.94	313 4 7.90	49.149	1 0.2	41.5	7 56 21.5	23.8
17	B. D. −17° 6262	11	20 7.53	0.03	25.34	21 19 42.16	4.09	304 12 7.52	46.472	1 22.8	41.5	16 49 35.7	21.0
18	B. D. − 7° 5565	11	22 34.55	−0.04	−25.34	21 22 9.17	−3.96	313 34 8.45	48.839	59.2	41.5	− 7 26 25.9	−24.2
19	B. D. −17° 6302	11	26 11.28	−0.03	−25.34	21 25 45.91	−4.13	303 20 7.08	46.670	1 25.5	41.5	17 41 35.1	−21.1
20	B. D. −12° 6044	11	32 25.70	0.04	25.34	21 32 0.32	4.06	309 8 7.02	44.048	1 9.3	41.5	11 54 9.2	23.3
21	γ Capricorni	11	35 2.66	0.03	**25.39**	21 34	....	303 56 7.05	43.765	1 23.7	**41.2**	17 6	....
22	B. D. −18° 5998	11	38 30.33	0.03	25.34	21 38 4.96	4.17	303 12 7.95	44.498	1 26.1	41.6	17 50 16.5	21.7
23	δ Capricorni	11	42 0.93	0.03	**25.40**	21 41	....	304 28 7.55	43.599	1 22.1	**41.4**	16 34	....
24	B. D. −13° 6027	11	44 46.39	−0.03	−25.34	21 44 21.02	−4.13	307 52 7.22	41.716	1 12.6	41.6	−13 10 57.2	−23.5
25	B. D. −17° 6397	11	47 41.33	−0.03	25.35	21 47 15.95	−4.20	303 30 6.75	46.071	1 25.1	41.7	−17 31 46.7	−22.3
26	B. D. −12° 6126	11	50 8.54	0.04	25.35	21 49 43.15	4.14	308 36 6.78	44.121	1 10.7	41.7	12 26 9.7	24.0
27	B. D. −12° 6134	11	53 24.62	0.04	25.35	21 52 59.23	4.15	308 28 8.98	43.575	1 11.1	41.7	12 34 18.4	24.1
28	B. D. − 7° 5688	11	58 30.41	0.04	25.35	21 58 5.02	4.10	314 2 8.62	44.189	58.5	41.8	6 59 54.5	26.0
29	B. D. −15° 6139	11	1 16.39	0.03	25.35	22 0 51.01	4.21	305 40 7.82	43.260	1 18.7	41.8	15 22 33.2	23.6
30	B. D. −12° 6195	11	3 42.81	−0.04	−25.35	22 3 17.42	−4.18	308 56 7.42	45.454	1 9.9	41.8	−12 5 42.8	−24.7
31	B. D. −19° 6249	11	9 21.19	−0.03	25.35	22 8 55.81	−4.29	301 18 6.68	45.075	1 32.7	41.8	−19 44 13.5	22.7
32	B. D. −10° 5879	11	13 1.45	0.04	25.36	22 12 36.05	4.19	310 46 7.20	50.539	1 5.5	41.8	10 14 1.2	25.6
33	B. D. − 9° 5963	11	16 4.37	0.04	25.36	22 15 38.97	4.19	311 46 7.12	45.422	1 3.3	41.9	9 15 37.2	26.0
34	B. D. − 7° 5765	10	18 47.10	0.04	25.36	22 18 21.70	4.19	313 20 7.45	45.374	59.9	41.9	7 41 34.4	26.6
35	B. D. 12° 6271	11	22 0.11	0.04	25.36	22 21 34.71	4.24	309 10 7.38	47.456	1 9.3	41.9	11 51 3.9	25.5
36	B. D. − 8° 5888	8	25 46.77	−0.04	−25.36	22 25 21.37	−4.22	312 24 7.70	47.032	1 1.9	42.0	− 8 37 2.8	−26.5
37	B. D. −14° 6320	11	33 44.37	−0.03	−25.37	22 33 18.97	−4.30	306 26 8.18	48.618	1 16.5	42.0	−14 34 48.1	−25.2
38	B. D. −11° 5912	11	41 27.85	0.04	25.38	22 41 2.43	4.29	309 20 8.40	47.389	1 9.0	42.1	11 41 4.1	26.2
39	τ Aquarii	11	44 47.70	0.03	**25.45**	22 44	....	306 54 8.60	48.540	1 15.3	**41.8**	14 6	....
40	B. D. −10° 6008	11	47 59.86	0.04	25.38	22 47 34.44	4.30	310 26 7.20	47.625	1 6.4	42.2	10 34 58.3	26.6
41	B. D. − 6° 6110	10	53 27.66	0.04	25.39	22 53 2.23	4.29	314 48 8.62	47.655	57.0	42.3	6 12 47.0	27.9
42	B. D. − 0° 4443	11	55 59.90	−0.05	−25.39	22 55 34.46	4.28	320 40 9.25	47.705	46.4	42.3	− 0 20 34.9	−29.3
43	B. D. − 1° 4382	11	58 30.72	−0.05	−25.39	22 58 5.28	−4.29	320 4 8.70	45.526	47.4	42.3	− 0 57 18.2	−29.2
44	B. D. −11° 5997	11	1 9.79	0.04	25.40	23 0 44.35	4.34	310 2 7.78	50.045	1 7.3	42.4	−10 58 12.4	26.8
45	B. D. + 1° 4686	11	4 3.44	0.05	25.40	23 3 37.99	4.30	322 36 8.22	47.805	43.3	42.4	+ 1 35 30.6	29.8
46	B. D. − 4° 5852	11	10 54.96	0.04	25.41	23 10 29.51	−4.34	316 58 8.42	49.875	52.9	42.5	− 4 2 0.8	−28.6
47	ψ₃ Aquarii	11	14 15.38	0.04	**25.35**	23 13	....	310 52 7.85	47.482	1 5.5	**42.6**	−10 8	....
48	κ Piscium	11	22 18.20	− 0.05	**−25.41**	23 21	....	321 44 7.60	46.379	44.8	**42.9**	+ 0 42	....

1900 OCTOBER 19. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

49	h Sagittarii	11	31 6.78	−0.06	**−25.58**	19 30	....	295 56 6.10	46.936	1 58.6	**43.0**	25 6	....
50	f Sagittarii	11	41 1.01	0.06	**25.48**	19 40	....	301 2 7.75	46.310	1 36.1	**42.2**	19 59	....
51	C. P. D. −24° 6906	11	2 11.45	0.06	25.54	20 1 45.85	−3.92	296 52 8.85	46.759	1 54.2	42.5	24 10 1.2	−13.1
52	B. D. −15° 5576	11	6 8.45	0.06	25.54	20 5 42.85	3.74	305 14 9.20	47.415	1 22.1	42.5	15 47 16.3	16.3
53	B. D. −19° 5753	11	9 25.41	0.06	25.54	20 8 59.81	−3.84	301 32 6.82	44.750	1 34.5	42.5	19 30 22.1	−15.3
54	4 Capricorni......	11	12 38.48	0.06	**−25.59**	20 12	....	298 56 8.18	43.579	1 44.9	**42.2**	−22 6	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
18 20 15	29.78	61.3	61.8
20 58	29.78	60.5	62.0
21 55	29.79	60.0	60.4
22 35	29.80	59.5	59.8
23 15	29.80	58.5	58.5
19 19 29	29.96	52.6	50.4

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

7.	Bisections at I, II, VII.
36, 45.	Bisections at I, II.

Note.

Oct. 18. Stopped work because of clouds which bothered much at times; seeing very bad.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT + m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READ-ING.	REFR.	EQUA-TOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	C. P. D. −23° 7723	11	16 4.05	−0.06	−25.54	20 15 38.45	−3.97	297 14 7.70	48.724	1 52.4	42.6	−23 47 23.0	−14.2
2	B. D. −19° 5809	11	19 47.61	0.06	25.54	20 19 22.01	3.89	301 18 7.60	42.151	1 35.5	42.6	19 45 12.3	15.9
3	B. D. −14° 5753	11	22 57.85	0.06	25.54	20 22 32.25	3.79	306 42 7.62	47.100	1 17.9	42.6	14 19 19.8	18.1
4	B. D. −14° 5781	11	29 7.20	0.06	25.54	20 28 41.60	3.81	306 58 8.45	46.218	1 17.2	42.6	14 3 35.2	18.6
5	B. D. −11° 5379	11	32 57.20	0.06	25.54	20 32 31.60	3.78	309 40 7.95	42.870	1 10.2	42.6	11 22 32.9	19.8
6	B. D. −16° 5663	11	35 24.95	−0.06	−25.54	20 34 59.35	−3.89	304 34 8.55	43.745	1 24.4	42.7	−16 28 29.8	−18.2
7	B. D. −12° 5808	11	38 35.35	−0.06	−25.54	20 38 9.75	−3.82	309 2 7.65	45.580	1 11.7	42.7	−11 59 42.8	−20.0
8	B. D. −17° 6081	11	41 25.33	0.06	25.54	20 40 59.73	3.94	303 30 7.28	47.820	1 27.8	42.7	17 31 16.3	18.2
9	B. D. −21° 5840	11	43 57.96	0.06	25.54	20 43 32.36	4.02	300 2 7.48	47.929	1 40.4	42.7	20 59 26.6	17.2
10	B. D. −10° 5526	11	46 50.99	0.06	25.54	20 46 25.39	3.83	310 20 8.85	47.064	1 8.5	42.7	10 41 10.0	21.0
11	B. D. −15° 5833	11	49 51.26	0.06	25.54	20 49 25.66	3.93	305 22 7.98	46.952	1 21.9	42.7	15 39 26.4	19.4
12	B. D. −20° 6090	11	54 10.30	−0.06	−25.54	20 53 44.70	−4.05	300 12 7.30	47.360	1 39.8	42.8	−20 49 37.2	−17.9
13	B. D. −21° 5901	11	56 52.48	−0.06	−25.54	20 56 26.88	−4.08	299 20 6.58	42.691	1 43.5	42.8	21 43 11.1	−17.8
14	θ Capricorni ……	11	0 49.16	0.06	**25.49**	21 0 …..	….	303 24 7.50	47.135	1 28.2	**42.9**	17 36 ….	….
15	B. D. −17° 6196	11	5 16.45	0.06	25.54	21 4 50.85	4.03	303 40 7.78	46.974	1 27.3	42.8	17 21 31.6	19.8
16	B. D. −16° 5827	11	10 31.15	0.06	25.54	21 10 5.55	4.03	304 32 7.62	45.248	1 24.6	42.8	16 30 1.6	20.4
17	B. D. −19° 6065	11	13 3.80	0.06	25.54	21 12 38.20	4.09	301 56 6.55	45.749	1 33.4	42.8	19 6 2.4	19.7
18	B. D. −11° 5578	11	15 53.38	−0.06	−25.54	21 15 27.78	−3.98	309 14 8.18	50.799	1 11.3	42.8	−11 46 1.9	−22.4
19	B. D. −21° 6007	11	18 59.15	−0.06	−25.54	21 18 33.55	−4.15	299 46 6.52	45.402	1 41.7	42.9	−21 16 17.5	−19.4
20	B. D. −11° 5598	11	21 32.09	0.06	25.54	21 21 6.49	3.99	309 40 6.95	49.062	1 10.3	42.9	11 20 35.6	22.8
21	B. D. −13° 5941	11	24 26.29	0.06	25.54	21 24 0.69	4.03	307 48 8.40	50.721	1 15.1	42.9	13 12 7.1	22.4
22	β Aquarii ……..	11	26 47.25	0.06	**25.55**	21 26 …..	….	315 0 8.28	49.392	58.3	**42.5**	6 0 ….	….
23	B. D. −16° 5961	10	47 35.43	0.06	25.54	21 47 9.83	4.17	304 18 7.68	47.604	1 25.4	43.0	16 43 17.9	22.4
24	B. D. −12° 6134	11	53 24.75	−0.06	−25.54	21 52 59.15	−4.13	308 26 8.90	50.018	1 13.5	43.0	−12 34 18.6	−24.0
25	B. D. −12° 6150	11	56 20.51	−0.06	−25.54	21 55 54.91	−4.13	309 12 8.52	47.804	1 11.6	43.0	−11 48 59.5	−24.4
26	B. D. − 8° 5789	11	58 45.49	0.06	25.54	21 58 19.89	4.10	313 6 8.88	43.741	1 2.5	43.1	7 56 8.1	25.7
27	ι Aquarii ……..	11	1 32.01	0.06	**25.56**	22 1 …..	….	306 42 7.80	42.244	1 18.4	**43.2**	14 20 ….	….
28	B. D. − 9° 5927	11	4 42.79	0.06	25.54	22 4 17.19	4.13	311 44 8.20	47.436	1 5.5	43.1	9 17 0.9	25.5
29	B. D. −18° 6084	11	7 35.40	0.06	25.54	22 7 9.80	4.26	302 32 8.55	42.975	1 31.5	43.1	18 30 52.0	22.8
30	B. D. −17° 6478	11	11 20.11	−0.06	−25.54	22 10 54.51	−4.25	303 20 8.25	46.200	1 28.7	43.1	−17 41 47.7	−23.3
31	B. D. −17° 6491	11	14 38.91	−0.06	−25.54	22 14 13.31	−4.26	303 50 8.15	46.115	1 27.1	43.1	−17 11 47.8	−23.6
32	B. D. −11° 5817	11	17 23.17	0.06	25.54	22 16 57.57	4.20	309 40 7.78	48.741	1 10.4	43.1	11 20 41.2	25.4
33	B. D. −14° 6276	11	19 35.59	0.06	25.54	22 19 9.99	4.24	307 0 8.28	45.744	1 17.5	43.2	14 1 45.3	24.7
34	B. D. − 4° 5683	11	24 41.95	0.06	25.54	22 24 16.35	4.17	316 20 8.42	45.358	55.8	43.2	4 41 31.0	27.5
35	B. D. −10° 5947	11	29 20.43	0.06	25.54	22 28 54.83	4.23	310 54 7.55	47.578	1 7.4	43.2	10 7 0.8	26.1
36	B. D. −14° 6317	11	33 4.30	−0.06	−23.54	22 32 38.70	−4.27	307 8 8.68	48.214	1 17.1	43.2	−13 52 57.2	−25.2
37	B. D. − 9° 6037	11	38 14.85	−0.06	−25.54	22 37 49.25	−4.25	311 22 9.10	43.820	1 6.4	43.2	− 9 40 10.4	−26.5
38	B. D. −12° 6342	11	41 20.66	0.06	25.54	22 40 55.06	4.28	308 58 8.90	46.408	1 12.3	43.3	12 3 26.9	26.0
39	B. D. − 5° 5866	11	43 49.42	0.06	25.54	22 43 23.82	4.24	315 56 7.80	44.730	56.6	43.3	5 5 44.5	27.9
40	λ Aquarii ……..	11	47 53.75	0.06	**25.55**	22 47 …..	….	312 54 9.12	49.650	1 2.9	**43.2**	8 6 ….	….
41	B. D. 11° 5953	11	52 4.67	0.06	25.54	22 51 39.07	4.30	310 14 8.25	46.578	1 9.1	43.3	10 47 21.1	26.6
42	B. D. −15° 6325	11	56 38.05	−0.06	−25.54	22 56 12.45	−4.34	306 14 8.72	45.025	1 19.7	43.3	−14 48 1.0	−25.7
43	B. D. + 0° 4963	11	0 40.52	−0.06	−25.54	23 0 14.92	−4.28	321 48 9.05	45.131	46.1	43.4	+ 0 46 34.7	−29.5
44	B. D. − 6° 6147	11	3 9.79	0.06	25.54	23 2 44.19	4.31	314 48 8.00	44.510	58.9	43.4	− 6 13 51.0	27.9
45	B. D. −11° 6020	10	6 45.90	0.06	25.54	23 6 20.30	4.34	309 58 9.25	48.761	1 9.7	43.4	11 2 38.9	26.8
46	φ Aquarii ……..	11	9 38.53	0.06	**25.52**	23 9 …..	….	314 26 8.95	47.691	59.7	**43.2**	6 34 ….	….
47	B. D. − 8° 6076	11	12 9.88	0.06	25.54	23 11 44.28	4.34	312 46 10.15	44.635	1 3.3	43.4	8 15 50.8	27.6
48	B. D. − 5° 5966	11	14 42.90	−0.06	−25.54	23 14 17.30	−4.34	315 22 10.55	44.559	57.8	43.4	− 5 39 46.4	−28.2
49	B. D. − 4° 5879	10	18 44.22	−0.06	−25.54	23 18 18.62	−4.35	317 16 9.65	45.794	54.1	43.4	− 3 45 19.9	−28.7
50	B. D. −12° 6496	11	23 22.95	0.06	25.54	23 22 57.35	4.38	309 2 9.60	46.115	1 12.1	43.5	−11 59 31.8	26.9
51	B. D. + 1° 4731	11	26 29.35	0.06	25.54	23 26 3.75	4.37	322 50 9.70	47.259	44.4	43.5	+ 1 49 17.8	29.8
52	B. D. + 4° 5029	11	29 48.50	0.07	25.54	23 29 22.89	4.39	325 56 9.78	47.891	39.6	43.5	+ 4 55 34.7	30.4
53	B. D. − 4° 5917	11	33 32.17	0.06	25.54	23 33 6.57	4.39	316 42 8.80	49.134	55.1	43.5	− 4 18 17.8	28.6
54	B. D. − 3° 5688	11	36 35.49	0.06	−25.54	23 36 9.89	−4.40	317 36 9.12	48.988	53.4	43.5	− 3 24 18.6	−28.8
55	B. D. − 1° 4485	11	40 22.45	0.06	−25.54	23 39 56.85	−4.42	319 48 9.35	48.314	49.5	43.5	− 1 12 27.4	−29.2
56	B. D. + 3° 4895	11	43 8.13	0.07	25.54	23 42 42.52	4.43	324 42 9.60	46.089	41.4	43.6	+ 3 40 58.1	30.0
57	B. D. + 5° 5224	11	45 37.55	0.07	25.54	23 45 11.94	4.45	327 2 8.35	41.652	38.0	43.6	+ 5 59 35.2	30.4
58	B. D. − 7° 6104	11	48 29.04	0.06	25.54	23 48 3.44	4.43	313 50 9.25	44.451	1 1.0	43.6	− 7 11 53.1	28.0
59	27 Piscium……..	11	54 3.25	0.06	**25.54**	23 54 …..	….	316 54 9.62	49.462	54.7	**43.3**	4 6 ….	….
60	B. D. − 3° 5749	11	57 11.98	0.06	25.54	23 56 46.38	−4.45	317 26 9.10	48.205	53.7	43.6	3 34 34.0	−28.6
61	33 Piscium……..	11	0 43.09	−0.06	**−25.55**	0 0 …..	….	314 46 8.45	45.455	59.0	**43.0**	− 6 15 ….	….

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
19 20 24	29.97	51.0	48.8
21 29	29.97	49.0	47.1
22 20	29.98	48.0	46.2
23 15	29.98	47.0	46.1
0 1	29.98	46.5	46.0

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

16. Bisections at I, II, VI.

Note.

Oct. 19. Star images very unsteady throughout the work.

1900 OCTOBER 20 CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	$\Delta T + m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	*h* Sagittarii	11	31 6.85	−0.04	**−25.69**	19 30	....	295 56 7.28	46.816	1 58.6	**41.8**	−25 6	....
2	*f* Sagittarii	11	41 1.11	0.04	**25.62**	19 40	....	301 2 7.82	46.282	1 36.2	**41.8**	19 59	....
3	C. P. D. −24° 6906	11	2 11.61	0.04	25.62	20 1 45.95	−3.89	296 52 8.68	46.885	1 54.2	42.1	24 9 59.2	−13.0
4	B. D. −15° 5576	11	6 8.39	0.04	25.62	20 5 42.73	3.72	305 14 8.95	47.449	1 22.2	42.1	15 47 15.6	16.3
5	B. D. −15° 5597	11	10 14.91	0.04	25.61	20 9 49.26	3.72	305 56 8.95	48.322	1 20.1	42.2	15 4 56.8	16.8
6	C. P. D. −25° 7042	11	14 15.86	−0.04	−25.61	20 13 50.21	−3.98	295 30 7.50	47.156	2 1.4	42.2	−25 32 1.8	−13.4
7	B. D. −13° 5661	11	19 2.31	−0.04	−25.60	20 18 36.67	−3.74	307 18 8.78	48.556	1 16.3	42.3	−13 42 48.8	−17.9
8	π Capricorni......	11	22 5.37	0.04	**25.60**	20 21	....	302 30 8.45	45.334	1 31.2	**42.2**	18 32	....
9	B. D. −19° 5830	11	24 38.16	0.04	25.60	20 24 12.52	3.87	302 6 7.78	49.579	1 32.5	42.3	18 54 46.3	16.5
10	B. D. −21° 5752	11	28 7.47	0.04	25.59	20 27 41.84	3.93	299 48 7.32	46.354	1 41.4	42.4	21 13 57.6	15.9
11	B. D. −21° 5768	11	31 8.82	0.04	25.59	20 30 43.19	3.94	300 8 7.42	41.196	1 40.2	42.4	20 55 35.3	16.2
12	B. D. −20° 5995	11	34 17.85	−0.04	−25.59	20 33 52.22	−3.93	301 0 7.65	48.725	1 36.6	42.4	−20 1 7.0	−16.8
13	B. D. −21° 5802	11	36 47.94	−0.04	−25.59	20 36 22.31	3.98	299 24 7.15	47.616	1 43.1	42.4	−21 37 35.3	−16.4
14	B. D. −11° 5408	11	39 39.15	0.04	25.58	20 39 13.53	3.78	310 10 7.38	48.208	1 9.0	42.4	10 50 49.7	20.4
15	ε Aquarii..........	11	42 45.20	0.04	**25.58**	20 42	....	311 10 7.65	46.410	1 6.6	**42.7**	9 51	....
16	B. D. −14° 5866	11	46 16.19	0.04	25.58	20 45 50.57	3.87	306 44 7.45	46.741	1 18.0	42.5	14 17 26.9	19.6
17	C. P. D. −23° 7879	11	49 45.01	0.04	25.58	20 49 19.39	4.06	297 48 7.35	47.868	1 50.1	42.5	23 13 37.4	16.7
18	B. D. −12° 5876	11	53 3.35	−0.04	−25.57	20 52 37.74	−3.86	308 42 8.92	44.472	1 42.8	42.5	−12 20 3.7	−20.7
19	C. P. D. −23° 7896	11	56 6.46	−0.04	−25.57	20 55 40.85	−4.09	297 34 7.72	47.079	1 51.3	42.5	23 27 53.3	−17.1
20	B. D. −11° 5524	11	0 55.85	0.04	25.57	21 0 30.24	3.88	310 0 8.22	49.864	1 9.4	42.6	11 0 17.7	21.6
21	B. D. −18° 5875	11	5 24.08	0.04	25.56	21 4 58.48	4.03	302 18 7.70	46.004	1 32.1	42.6	18 43 54.9	19.3
22	B. D. −13° 5881	11	9 9.40	0.04	25.56	21 8 43.80	3.94	308 8 8.75	49.775	1 14.2	42.6	12 52 23.7	21.5
23	B. D. −18° 5903	11	12 50.55	0.04	25.56	21 12 24.95	4.05	302 38 7.68	45.980	1 31.0	42.6	18 23 54.3	19.9
24	B. D. −20° 6192	11	16 14.48	−0.04	−25.56	21 15 48.88	−4.09	301 4 7.65	49.686	1 36.6	42.7	−19 56 48.9	−19.5
25	B. D. −15° 5983	11	21 26.23	−0.04	−25.55	21 21 0.64	4.04	305 20 8.38	50.455	1 22.2	42.7	15 40 19.1	21.3
26	B. D. −14° 6039	11	24 41.30	0.04	25.55	21 24 15.71	4.03	306 34 8.52	46.969	1 18.7	42.7	14 27 22.3	21.9
27	B. D. −15° 6005	11	27 41.20	0.04	25.55	21 27 15.61	4.05	306 8 7.58	44.539	1 20.0	42.7	14 54 11.1	21.9
28	B. D. −19° 6131	11	31 17.85	0.04	25.55	21 30 52.26	4.12	302 12 6.40	45.820	1 32.7	42.7	18 50 0.4	20.8
29	B. D. −22° 5735	11	33 59.29	0.04	25.55	21 33 33.70	4.19	298 52 5.82	47.932	1 45.7	42.7	22 9 33.5	19.8
30	B. D. 21° 6076	11	37 53.01	0.04	−25.55	21 37 27.42	−4.18	300 10 6.80	47.019	1 40.3	42.8	−20 51 44.7	−20.5
31	δ Capricorni......	11	42 1.01	−0.04	**−25.50**	21 41	....	304 28 7.08	43.824	1 25.2	**42.4**	16 34	....
32	B. D. −12° 6104	11	45 18.86	0.04	25.54	21 44 53.28	−4.07	309 14 8.22	44.169	1 11.7	42.8	11 48 9.4	−23.8
33	μ Capricorni	11	48 20.42	0.04	**25.57**	21 47	....	307 0 8.30	48.205	1 17.6	**43.2**	14 0	....
34	B. D. −13° 6130	11	8 8.82	0.04	25.54	22 7 43.24	4.17	307 30 8.78	48.874	1 16.2	42.9	13 30 43.2	24.3
35	B. D. −18° 6096	11	12 35.34	0.04	25.54	22 12 9.76	4.25	302 24 8.62	41.624	1 32.2	42.9	18 39 18.4	22.9
36	B. D. − 4° 5655	11	15 7.24	0.04	−25.54	22 14 41.66	4.11	316 28 8.65	45.076	55.7	42.9	4 33 35.8	−27.2
37	B. D. −15° 6208	11	18 28.04	−0.04	−25.54	22 18 2.46	−4.23	305 36 7.90	43.032	1 21.8	43.0	15 26 41.8	−24.1
38	B. D. − 5° 5790	11	21 23.91	0.04	25.54	22 20 58.33	4.14	315 20 8.32	47.982	57.9	43.0	5 40 42.7	27.0
39	B. D. −16° 6092	11	24 0.25	0.04	25.54	22 23 34.67	4.26	304 22 7.75	47.396	1 25.5	43.0	16 39 22.0	24.0
40	B. D. − 7° 5797	11	26 33.50	0.04	25.54	22 26 7.92	4.18	313 58 9.02	45.670	1 0.7	43.0	7 3 29.1	26.8
41	B. D. −15° 6243	11	29 35.57	0.04	25.54	22 29 9.99	4.26	305 24 7.90	46.349	1 22.3	43.0	15 37 38.7	−24.5
42	κ Aquarii.........	11	33 4.45	−0.04	**25.54**	22 32	....	316 16 8.65	49.544	56.0	**42.9**	− 4 44	....
43	B. D. − 3° 5491	11	38 17.65	−0.04	25.54	22 37 52.07	4.19	317 50 9.10	43.941	53.1	43.0	− 3 11 54.6	28.2
44	B. D. − 7° 5858	11	42 39.15	0.04	25.54	22 42 13.57	4.23	313 46 8.35	47.226	1 1.2	43.0	7 15 0.4	27.2
45	B. D. −13° 6283	11	45 46.86	0.04	25.54	22 45 21.28	4.28	307 48 7.25	48.718	1 15.4	43.1	13 12 47.1	25.7
46	B. D. −12° 6371	11	48 42.76	0.04	25.54	22 48 17.18	4.28	308 52 7.02	49.571	1 12.6	43.1	12 8 28.2	26.0
47	B. D. −15° 6305	11	51 42.53	0.01	25.54	22 51 16.95	4.32	305 30 8.08	48.408	1 22.0	43.1	15 30 58.8	25.2
48	B. D. − 8° 5991	11	54 16.70	−0.04	−25.54	22 53 51.12	−4.28	312 16 8.40	49.030	1 4.4	43.1	− 8 44 29.1	−27.1
49	B. D. −12° 6404	11	57 47.79	−0.04	−25.54	22 57 22.21	−4.31	309 14 8.25	45.440	1 11.8	43.1	11 47 45.4	−26.4
50	B. D. −13° 6344	11	2 14.16	0.04	25.54	23 1 48.58	4.33	307 46 7.80	46.049	1 15.6	43.1	13 15 38.0	26.1
51	B. D. − 4° 5833	11	4 57.13	0.04	25.54	23 4 31.55	4.29	316 32 6.70	44.590	55.6	43.1	4 29 47.1	28.3
52	B. D. − 0° 4483	11	8 22.74	0.05	25.54	23 7 57.15	4.30	320 30 7.58	48.816	48.3	43.1	0 30 18.0	29.2
53	ψ_1 Aquarii........	11	11 9.12	0.04	**25.53**	23 10	....	311 24 7.05	46.016	1 6.5	**42.6**	9 37	....
54	B. D. − 0° 4498	11	13 42.87	0.05	25.54	23 13 17.28	4.32	321 0 7.65	47.156	47.5	43.1	0 0 48.9	29.4
55	B. D. −11° 6053	11	16 10.45	−0.04	−25.54	23 15 44.87	−4.35	309 56 7.65	49.761	1 10.0	43.1	−11 4 21.4	−26.9

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
20 19 26	30.07	54.0	52.5
20 15	30.08	52.0	50.4
21 2	30.08	50.0	49.0
21 52	30.09	49.0	47.4
22 34	30.09	49.0	47.0

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

3. Bisections at II, VI, VII.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT+m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READINGS.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −0° 4509	11	18 54.06	−0.05	−25.54	23 18 28.47	−4.33	320 46 8.80	46.605	47.9	43.1	−0 14 58.7	29.3
2	B. D. −6° 6213	11	21 59.48	0.04	25.54	23 21 33.90	4.35	315 14 9.08	48.641	58.1	43.1	5 46 29.6	28.2
3	B. D. −9° 6206	11	27 6.10	0.04	25.54	23 26 40.52	4.38	312 8 9.00	49.425	1 4.8	43.2	8 52 21.4	27.5
4	B. D. +2° 4686	10	31 29.10	0.05	25.54	23 31 3.51	−4.38	323 36 8.95	50.892	43.2	43.2	2 36 28.2	29.9
5	ι Piscium........	11	35 18.35	0.05	**−25.49**	23 34	....	326 6 8.72	47.871	39.4	**43.7**	5 5	....
6	B. D. −5° 6041	11	39 56.49	−0.04	−25.54	23 39 30.91	−4.40	315 28 9.00	46.172	57.7	43.2	5 33 16.7	−28.2
7	B. D. −7° 6086	11	43 54.20	0.04	25.54	23 43 28.62	4.41	314 6 8.55	45.072	1 0.5	43.2	6 55 41.0	28.0
8	B. D. −5° 6081	11	50 30.07	0.04	25.54	23 50 4.49	4.42	315 48 7.95	47.074	57.1	43.2	5 12 59.9	28.3
9	B. D. +0° 4603	11	56 1.55	0.05	25.54	23 55 35.96	−4.45	320 42 9.30	44.819	48.1	43.2	0 19 32.8	29.1
10	33 Piscium........	11	0 43.10	−0.04	**−25.58**	0 0	....	314 46 8.65	45.431	59.2	**43.4**	−6 15	....

1900 OCTOBER 22. CLAMP WEST.

EICHELBERGER, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT+m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READINGS.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
11	h Sagittarii	11	31 6.98	+0.02	**−25.91**	19 30	....	295 56 5.90	46.592	1 54.1	**40.7**	−25 6	....
12	f Sagittarii........	11	41 1.21	0.01	**25.82**	19 40	....	301 2 5.95	46.094	1 32.5	**40.0**	19 59	....
13	B. D. −14° 5648	11	3 28.44	0.00	25.87	20 3 2.57	−3.64	306 30 8.20	43.575	1 15.4	40.3	14 32 22.0	−16.4
14	B. D. −22° 5354	11	6 1.03	0.01	25.87	20 5 35.17	3.81	298 48 7.98	44.295	1 41.3	40.3	22 14 34.9	13.9
15	B. D. −22° 5372	11	8 54.86	0.01	25.86	20 8 29.01	3.83	298 42 9.02	45.448	1 41.7	40.4	22 20 11.6	14.1
16	B. D. −21° 5669	11	11 26.81	+0.01	−25.86	20 11 0.96	3.81	299 48 3.85	45.585	1 37.2	40.4	−21 14 9.7	−14.6
17	B. D. −17° 5936	11	14 30.21	0.00	−25.86	20 14 4.35	3.75	303 14 4.45	46.072	1 25.1	40.4	−17 47 47.0	−16.1
18	C. P. D. −26° 6996	11	19 6.17	+0.02	25.85	20 18 40.31	3.96	294 54 6.40	43.630	1 59.8	40.5	26 9 7.2	13.4
19	C. P. D. −24° 6997	11	23 18.45	+0.02	25.85	20 22 52.62	3.93	296 44 6.00	44.995	1 50.5	40.5	24 18 32.2	14.4
20	B. D. −15° 5696	11	25 57.85	0.00	25.85	20 25 32.00	3.76	305 38 6.80	47.650	1 17.9	40.5	15 23 8.0	17.8
21	B. D. −18° 5714	11	30 12.65	0.00	25.84	20 29 46.81	−3.83	302 54 6.70	46.752	1 26.2	40.6	18 7 33.7	−17.1
22	υ Capricorni......	11	34 51.25	0.00	**−25.91**	20 34	....	302 34 8.05	41.736	1 27.5	**39.9**	−18 29	....
23	B. D. −22° 5523	11	40 52.09	+0.01	−25.83	20 40 26.27	−3.95	299 10 5.88	44.962	1 39.9	40.7	−21 52 22.6	−16.5
24	B. D. −11° 5434	11	44 26.73	−0.01	25.83	20 44 0.89	3.77	309 12 6.60	47.059	1 8.6	40.8	11 49 10.5	20.2
25	B. D. −17° 6112	11	47 48.01	0.00	25.83	20 47 22.18	3.89	303 40 5.75	43.476	1 23.9	40.8	17 22 35.3	18.5
26	B. D. −13° 5791	11	50 39.29	−0.01	25.83	20 50 13.45	3.82	307 46 6.50	49.064	1 12.1	40.8	13 14 35.7	20.1
27	B. D. −15° 5848	11	53 39.39	0.00	25.82	20 53 13.57	3.87	306 10 6.70	45.442	1 16.5	40.9	14 51 49.4	19.8
28	B. D. −14° 5908	11	56 7.40	0.00	−25.82	20 55 41.58	−3.86	307 8 6.98	41.852	1 13.9	40.9	−13 54 55.4	−20.2
29	B. D. −20° 6115	11	59 12.73	+0.01	25.82	20 58 46.92	3.99	300 48 6.42	43.525	1 33.7	40.9	−20 14 43.6	−18.2
30	B. D. −22° 5612	11	2 40.07	0.01	25.82	21 2 14.26	4.05	298 18 6.68	46.532	1 43.6	40.9	22 43 55.5	17.6
31	C. P. D. −23° 7931	11	5 22.84	0.01	25.82	21 4 57.03	4.08	297 20 5.42	44.544	1 48.0	40.9	23 42 39.3	17.4
32	B. D. −22° 5630	11	8 47.04	+0.01	25.82	21 8 21.23	4.07	298 26 6.05	42.744	1 43.2	41.0	22 37 8.5	18.0
33	B. D. −9° 5700	11	11 25.48	−0.01	25.81	21 10 59.66	−3.86	311 24 6.15	45.844	1 3.5	41.0	9 37 29.4	−22.6
34	ι Capricorni......	11	17 10.57	0.00	**−25.77**	21 16	....	303 46 5.70	47.561	1 23.7	**41.1**	−17 15	....
35	B. D. −19° 6098	11	21 56.14	+0.01	−25.81	21 21 30.34	−4.06	301 34 0.65	42.585	1 31.1	41.1	−19 29 5.7	−19.9
36	B. D. −9° 5758	11	25 7.78	−0.01	25.81	21 24 41.96	3.91	311 58 7.05	50.466	1 2.3	41.1	9 1 58.8	23.6
37	B. D. −9° 5770	11	29 52.43	0.01	25.81	21 29 26.61	3.94	311 30 7.28	45.822	1 3.4	41.1	9 31 28.7	23.6
38	ξ Aquarii........	11	32 55.51	0.02	**25.79**	21 32	....	312 44 7.55	44.763	1 0.7	**41.1**	8 17	....
39	B. D. −9° 5809	11	36 7.22	−0.01	25.81	21 35 41.40	3.96	311 26 7.05	46.284	1 3.5	41.2	9 35 20.3	23.9
40	B. D. −18° 5998	11	38 30.71	0.00	−25.81	21 38 4.90	−4.09	303 12 6.88	44.524	1 25.5	41.2	−17 50 16.1	−21.3
41	B. D. −18° 6013	11	42 42.45	0.00	−25.81	21 42 16.64	4.12	302 22 4.70	44.971	1 28.3	41.2	−18 40 12.5	−21.3
42	B. D. −21° 6102	11	45 45.71	+0.01	25.81	21 45 19.91	4.16	300 2 6.58	45.571	1 36.7	41.2	21 0 7.5	20.6
43	B. D. −14° 6150	11	48 25.85	0.00	25.81	21 48 0.04	4.08	306 22 7.32	47.299	1 16.1	41.2	14 39 13.1	22.9
44	B. D. −19° 6190	11	52 2.72	+0.01	25.81	21 51 36.92	4.16	301 22	....	......	....	19 39	....
45	B. D. −11° 5726	11	54 55.04	−0.01	25.81	21 54 29.22	4.06	310 14 7.50	47.436	1 6.2	41.3	10 47 0.5	24.4
46	B. D. −5° 5697	11	59 51.54	−0.02	−25.81	21 59 25.71	−4.02	315 42 6.98	46.758	54.7	41.3	−5 19 2.6	−26.3
47	B. D. −20° 6362	7	2 24.85	+0.01	−25.82	22 1 59.04	4.20	301 0 6.98	42.580	1 33.2	41.3	20 3 2.7	−21.8
48	B. D. −11° 5813	11	21 52.99	−0.01	25.82	22 21 27.16	−4.16	309 18 8.68	45.145	1 8.5	41.4	11 43 47.0	−25.2
49	σ Aquarii..........	8	25 51.36	0.01	**25.80**	22 25	....	309 50 7.85	47.638	1 7.2	**41.4**	11 10	....
50	λ Aquarii..........	8	47 54.04	−0.02	**25.91**	22 47	....	312 54 7.75	49.392	1 0.3	**41.4**	−8 6	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
20 23 23	30.09	49.0	46.8
0 1	30.085	48.0	46.3
22 19 34	30.03	71.5	70.6
20 31	30.03	70.0	69.6
21 27	30.03	68.0	68.0
22 27	30.04	68.0	67.9
22 49	30.04	68.0	67.8

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

14, 35. Bisections at II, VI, VII.
17. Bisections at I, II, VI.
38. Bisections at I, II, VII.
47. Bisections at VI, VII.
48. Bisection at VI.
50. Bisections at I, II.

Note.
Oct. 22. Clouds all night.

1900 OCTOBER 24. CLAMP WEST.

EICHELBERGER, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c \sec \delta + n \tan \delta$	$\Delta T - m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	*f* Sagittarii	10	41 0.72	0.03	**25.39**	19 40	....	301 2 6.42	46.202	1 32.7	**42.3**	−19 59	....
2	B. D. 15° 5564	11	3 19.55	0.02	25.32	20 2 54.25	3.61	305 44 7.62	42.341	1 17.8	42.1	15 18 50.5	16.2
3	C. P. D. 24° 6922	11	5 58.97	0.05	25.32	20 5 33.70	3.82	296 32 6.28	43.320	1 51.7	42.1	24 31 6.8	13.1
4	B. D. 18° 5626	11	9 12.35	0.03	25.32	20 8 47.06	3.70	302 38 7.70	46.822	1 27.3	42.1	18 23 33.9	15.5
5	4 Capricorni	11	12 38.00	0.04	**25.32**	20 12	....	298 56 6.48	43.470	1 41.1	**42.4**	22 6	....
6	B. D. 13° 5642	11	15 36.02	+0.02	25.31	20 15 10.73	3.62	307 58 7.08	44.284	1 11.8	42.1	13 4 7.8	−17.8
7	B. D. −22° 5419	11	18 58.47	+0.04	25.31	20 18 33.20	3.83	298 40 6.40	46.190	1 42.2	42.1	22 22 2.2	14.8
8	*π* Capricorni......	11	22 4.88	0.03	**25.25**	20 21	....	302 30 6.80	45.235	1 27.9	**42.1**	18 32	....
9	B. D. 19° 5831	11	24 39.05	0.03	25.30	20 24 13.78	3.78	302 8 7.22	43.796	1 29.1	42.1	18 54 34.2	16.4
10	C. P. D. 25° 7104	11	27 24.36	0.05	25.30	20 26 59.11	3.93	295 46 6.28	44.962	1 55.7	42.2	25 16 39.4	14.3
11	B. D. −17° 6027	11	30 21.85	0.02	25.30	20 29 56.57	3.76	304 10 7.05	45.699	1 22.5	42.2	16 51 51.4	−17.5
12	*υ* Capricorni......	11	34 50.57	+0.03	**25.29**	20 34	....	302 34 5.98	41.944	1 27.8	**41.6**	18 29	....
13	B. D. −3° 5539	11	53 35.87	−0.01	25.18	22 53 10.68	4.20	318 6 8.00	45.645	50.7	42.7	−2 55 20.8	−28.3
14	B. D. −3° 5553	11	57 15.62	0.01	25.18	22 56 50.43	4.21	317 48 7.18	47.005	51.3	42.7	3 12 55.7	28.3
15	B. D. −8° 6018	11	0 26.37	0.00	25.18	23 0 1.19	4.24	312 48 7.62	45.518	1 1.1	42.7	8 13 33.5	27.0
16	B. D. −1° 4393	11	3 7.48	0.01	25.17	23 2 42.30	4.23	320 12 8.50	44.171	47.2	42.7	0 49 44.6	28.9
17	B. D. −6° 6157	11	5 58.35	0.00	25.17	23 5 33.18	−4.25	314 32 7.58	44.840	57.5	42.7	6 29 43.0	−27.5
18	*φ* Aquarii	11	9 38.03	0.00	**25.12**	23 9	....	314 26 7.20	47.640	57.7	**42.7**	−6 34	....
19	*γ* Piscium	11	12 28.36	−0.02	**25.16**	23 12	....	323 46 7.38	45.165	41.5	**42.7**	−2 44	....
20	B. D. −9° 6173	11	16 30.01	+0.01	25.16	23 16 4.86	4.30	311 48 7.75	47.748	1 3.2	42.8	−9 12 52.8	−27.0
21	B. D. −8° 6103	11	19 24.43	0.00	25.16	23 18 59.27	4.30	312 56 8.30	45.556	1 0.8	42.8	8 5 31.9	27.3
22	B. D. 8° 6118	11	24 16.15	0.00	25.16	23 23 50.99	4.32	313 4 7.58	48.126	1 0.5	42.8	7 56 43.0	27.4
23	B. D. 3° 5661	11	29 2.85	0.01	25.15	23 28 37.69	4.32	318 14 8.35	45.701	50.5	42.8	−2 47 18.8	28.6
24	B. D. +1° 4744	11	31 46.65	0.02	25.15	23 31 21.48	4.34	322 34 8.22	47.351	43.3	42.8	−1 33 19.9	29.5
25	B. D. −2° 4701	11	36 13.92	0.02	25.15	23 35 48.75	4.36	324 6 7.92	45.824	41.0	42.8	−3 4 52.6	−29.8
26	B. D. +6° 5197	11	40 12.29	−0.03	25.14	23 39 47.12	4.39	327 40 7.72	45.088	35.8	42.8	+6 38 43.4	−30.5
27	B. D. −3° 5707	11	43 17.65	0.01	25.14	23 42 52.50	4.37	317 42 8.12	48.065	51.5	42.9	−3 18 34.8	28.4
28	B. D. −6° 6303	11	47 6.81	0.00	25.14	23 46 41.67	4.38	314 48 6.08	45.016	57.0	42.9	−6 13 40.8	27.8
29	B. D. 2° 4728	11	49 41.65	0.02	25.14	23 49 16.49	4.41	324 10 7.90	42.668	40.9	42.9	+3 7 52.0	29.6
30	B. D. −2° 4736	11	52 28.48	−0.02	25.13	23 52 3.33	4.42	323 32 7.48	47.474	41.8	42.9	+2 31 22.9	29.5
31	B. D. −5° 6097	11	56 21.84	0.00	25.13	23 55 56.71	−4.40	315 32 6.78	48.201	55.5	42.9	−5 28 37.5	−27.9
32	33 Piscium	11	0 42.64	0.00	**25.18**	0 0	....	314 46 7.28	45.361	57.1	**43.1**	−6 15	....

1900 OCTOBER 26. CLAMP WEST.

EICHELBERGER, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c \sec \delta + n \tan \delta$	$\Delta T - m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
33	*h* Sagittarii	11	31 5.82	0.01	**24.82**	19 30	....	295 56 6.88	46.712	1 55.7	**42.3**	−25 6	....
34	*f* Sagittarii	11	41 0.10	0.00	**24.77**	19 40	....	301 2 7.68	46.204	1 33.8	**42.5**	19 59	....
35	B. D. −13° 5608	11	7 19.87	−0.01	24.75	20 6 55.11	−3.55	308 8 6.78	(43)698	1 12.2	42.5	12 54 20.1	17.3
36	B. D. −21° 5684	11	14 4.15	+0.01	24.74	20 13 39.42	3.76	299 46 6.70	47.532	1 38.8	42.5	21 15 33.2	14.8
37	B. D. −16° 5609	11	23 33.91	0.00	24.74	20 23 9.17	3.69	304 58 6.95	45.019	1 21.0	42.6	16 4 3.5	17.3
38	C. P. D. −23° 7796	11	28 42.97	0.01	24.73	20 28 18.25	3.87	297 28 5.55	42.974	1 48.8	42.6	−23 35 11.8	−15.0
39	B. D. −12° 5778	11	31 13.90	0.01	24.73	20 30 49.16	−3.66	308 18 7.18	46.858	1 11.8	42.6	12 43 18.8	−19.0
40	*υ* Capricorni......	11	34 49.95	0.00	**24.68**	20 34	....	302 32 6.32	48.278	1 28.8	**42.5**	18 29	....
41	B. D. −11° 5408	11	39 38.14	−0.01	24.73	20 39 13.40	3.67	310 10 7.00	48.168	1 7.2	42.7	10 50 49.4	20.2
42	C. P. D. −23° 7859	11	43 0.28	+0.01	24.72	20 42 35.57	3.91	297 56 6.75	46.699	1 46.7	42.7	23 5 57.2	16.1
43	B. D. −20° 6055	11	47 1.65	0.00	24.72	20 46 36.93	3.87	301 2 7.35	43.345	1 34.2	42.7	20 0 48.4	17.4
44	B. D. −18° 5805	11	49 37.37	0.00	24.72	20 49 12.65	−3.84	302 44 7.72	46.110	1 28.2	42.8	−18 17 49.2	−18.2
45	B. D. 16° 5741	11	52 33.35	0.00	24.72	20 52 8.63	−3.82	304 38 8.05	43.141	1 22.2	42.8	−16 24 39.8	19.1
46	B. D. 16° 5769	11	57 29.11	0.00	24.71	20 57 4.40	3.84	305 10 6.42	46.448	1 20.5	42.8	15 51 36.3	19.6
47	B. D. −14° 5936	11	2 5.64	0.00	24.71	21 1 40.93	3.83	306 44 8.22	41.680	1 16.2	42.8	14 19 1.6	20.4
48	B. D. −16° 5810	11	5 3.45	0.00	24.71	21 4 38.74	3.87	304 56 7.18	44.852	1 21.3	42.9	16 6 7.0	19.9
49	B. D. −20° 6159	11	8 45.44	0.00	24.70	21 8 20.74	3.96	300 32 6.65	46.879	1 36.1	42.9	−20 29 43.4	18.6

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
24 19 37	30.13	71.8	71.0
20 32	30.14	70.0	69.7
22 51	30.16	67.0	65.9
23 25	30.16	66.3	65.7
0 2	30.16	66.0	65.1
26 19 27	30.06	65.5	64.3
20 24	30.07	63.5	62.6

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

13. Bisections at I, VI, VII.

NO.	NAME.	THDS.	MEAN THREAD.	$c \sec \delta + n \tan \delta$	$\Delta T + m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −10° 5668	8	20 19.18	−0.01	−24.70	21 19 54.47	−3.84	310 52 8.15	44.140	1 5.8	43.0	−10 10 5.1	−22.9
2	B. D. −22° 5692	11	23 30.08	+0.01	24.69	21 23 5.40	4.05	298 48 6.58	45.642	1 43.2	43.0	22 14 14.4	18.8
3	B. D. −10° 5696	11	26 42.02	−0.01	24.69	21 26 17.32	3.87	310 50 8.12	49.036	1 5.8	43.0	10 10 30.5	23.2
4	B. D. −20° 6237	11	29 42.90	0.00	24.69	21 29 18.21	4.04	300 30 6.42	47.672	1 36.3	43.0	20 31 28.8	19.8
5	B. D. −15° 6027	11	33 13.75	0.00	24.69	21 32 49.06	3.97	305 40 7.20	47.406	1 19.1	43.1	15 21 16.0	21.7
6	B. D. −14° 6102	11	36 35.33	0.00	−24.68	21 36 10.65	−3.97	306 32 8.22	47.300	1 16.7	43.1	−14 29 14.7	−22.2
7	B. D. −15° 6052	11	39 2.15	0.00	−24.68	21 38 37.47	−3.99	305 50 7.08	44.868	1 18.7	43.1	−15 12 4.4	−22.1
8	B. D. −12° 6087	11	41 37.90	−0.01	24.68	21 41 13.21	3.96	309 12 6.78	47.041	1 9.7	43.1	11 49 14.1	23.3
9	B. D. −17° 6389	11	45 11.75	0.00	24.68	21 44 47.07	4.05	303 44 8.82	44.408	1 25.1	43.1	17 18 17.9	21.7
10	B. D. −9° 5908	11	59 42.41	0.01	24.67	21 59 17.73	4.00	311 50 7.95	45.574	1 3.6	43.2	9 11 35.1	25.0
11	B. D. −6° 5912	11	2 55.90	0.02	24.67	22 2 31.21	3.99	314 42 8.00	48.358	57.5	43.3	6 18 35.7	26.0
12	B. D. −11° 5770	11	5 40.50	−0.01	−24.66	22 5 15.83	−4.05	309 42 7.75	49.654	1 8.5	43.3	−11 18 22.0	−24.5
13	B. D. −16° 6046	11	9 42.15	0.00	−24.66	22 9 17.49	−4.12	304 44 7.72	45.558	1 22.0	43.3	−16 17 54.1	−23.1
14	B. D. −6° 5960	11	12 21.98	−0.02	24.66	22 11 57.30	4.02	315 8 7.68	47.831	56.7	43.3	5 52 45.3	26.5
15	B. D. 3° 5443	11	21 33.06	0.02	24.65	22 21 8.39	4.04	317 44 8.08	46.014	51.8	43.4	3 17 15.0	27.5
16	B. D. −10° 5929	11	24 30.57	0.01	24.65	22 24 5.91	4.11	310 52 6.85	44.401	1 5.8	43.4	10 10 1.1	25.5
17	B. D. −12° 6315	11	32 16.75	0.01	24.64	22 31 52.10	4.16	308 46 7.90	49.295	1 10.8	43.5	12 14 31.3	25.1
18	B. D. −7° 5838	11	38 29.75	−0.01	−24.64	22 38 5.10	−4.14	313 32 8.05	48.029	59.9	43.5	−7 28 44.5	−26.7
19	B. D. −13° 6262	11	40 37.87	−0.01	−24.64	22 40 13.22	−4.19	307 30 7.70	46.488	1 14.2	43.5	13 31 28.7	−25.0
20	B. D. −5° 5866	11	43 48.47	0.02	24.64	22 43 23.81	4.15	315 56 7.72	41.655	55.2	43.5	5 5 44.9	27.5
21	B. D. 3° 5521	11	47 59.35	0.02	24.63	22 47 34.70	4.16	317 52 9.32	46.825	51.6	43.6	3 8 58.2	28.1
22	B. D. 11° 5953	11	52 3.69	0.01	24.63	22 51 39.05	4.21	310 14 6.50	46.542	1 7.3	43.6	10 47 22.1	26.1
23	B. D. −9° 6100	11	55 35.44	0.01	24.63	22 55 10.80	4.22	311 36 7.25	48.969	1 4.1	43.6	9 24 31.6	26.5
24	B. D. −5° 5917	11	59 13.59	−0.02	−24.63	22 58 48.94	−4.21	315 42 9.08	44.999	55.6	43.6	5 19 37.4	−27.7
25	B. D. −9° 6123	11	2 33.45	−0.01	−24.62	23 2 8.82	−4.24	311 40 7.85	47.935	1 4.0	43.7	9 20 50.8	−26.7
26	B. D. −1° 4401	11	7 2.31	0.02	24.62	23 6 37.67	4.23	319 20 7.62	49.248	49.0	43.7	1 40 10.9	28.8
27	B. D. −13° 6372	11	11 7.26	0.01	24.62	23 10 42.63	4.29	307 18 8.30	47.019	1 14.8	43.7	13 43 18.7	25.6
28	ψ_3 Aquarii........	11	14 14.50	0.01	**24.59**	23 13	....	310 52 8.12	47.499	1 5.9	**43.4**	10 9	....
29	B. D. −13° 6391	11	17 7.80	0.01	24.61	23 16 43.18	4.30	308 2 7.45	46.730	1 12.8	43.8	−12 59 23.2	25.9
30	B. D. +2° 4663	11	19 39.33	−0.03	−24.61	23 19 14.69	−4.28	324 10 9.12	50.969	41.1	43.8	+ 3 10 31.3	30.0
31	B. D. −3° 5639	11	22 34.18	−0.02	−24.61	23 22 9.55	4.29	317 50 8.72	47.964	51.6	43.8	− 3 10 37.1	28.4
32	B. D. −3° 5655	11	28 15.94	0.02	24.60	23 27 51.32	4.31	317 28 8.08	44.828	52.3	43.8	3 33 38.6	28.4
33	B. D. −6° 6239	11	31 6.96	0.02	24.60	23 30 42.34	4.32	314 44 7.08	45.141	57.6	43.9	6 17 39.0	27.7
34	B. D. −9° 6224	11	33 31.60	0.01	24.60	23 33 6.99	4.33	311 50 7.20	49.341	1 3.7	43.9	− 9 10 24.4	27.0
35	λ Piscium........	11	37 25.62	0.03	**24.61**	23 37	....	322 16 8.48	44.138	44.2	**44.3**	+ 1 14	....
36	B. D. −7° 6078	9	40 7.91	−0.02	−24.60	23 39 43.29	−4.35	313 32 8.02	47.161	1 0.0	43.9	− 7 29 1.7	−27.4
37	B. D. +1° 4773	11	44 11.25	−0.03	−24.59	23 43 46.63	−4.38	322 40 8.85	49.675	43.5	44.0	+ 1 40 3.7	−29.4
38	B. D. +2° 4725	11	47 19.67	0.03	24.59	23 46 55.05	4.39	323 24 8.12	46.250	42.4	44.0	2 22 58.4	29.5
39	B. D. +6° 5216	11	50 29.79	0.04	24.59	23 50 5.16	4.43	327 32 8.92	47.180	36.3	44.0	6 31 23.0	30.3
40	B. D. +0° 5080	11	55 56.10	0.03	24.58	23 55 31.49	4.42	321 32 8.22	46.560	45.3	44.0	+ 0 31 1.5	−29.0
41	33 Piscium.......	11	0 42.06	0.02	−**24.59**	0 0	....	314 46 7.58	45.404	57.6	**43.9**	6 15	....

1900 OCTOBER 27. CLAMP WEST.

EICHELBERGER, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c \sec \delta + n \tan \delta$	$\Delta T + m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
42	*h* Sagittarii.......	11	31 5.63	−0.02	−**24.61**	19 30	....	295 56 5.92	46.725	1 54.5	**42.9**	−25 6	....
43	B. D. 14° 5648	11	3 26.81	0.03	24.51	20 3 2.27	−3.56	306 30 8.35	43.686	1 15.9	43.8	14 32 23.7	−16.4
44	B. D. −22° 5354	11	5 59.55	0.02	24.51	20 5 35.02	3.73	298 48 6.95	44.446	1 41.9	43.8	22 14 36.5	13.9
45	C. P. D. 27° 6972	11	9 31.54	0.02	24.51	20 9 7.01	−3.86	293 42 7.00	48.631	2 7.2	43.8	27 19 41.4	−12.3
46	4 Capricorni.......	11	12 37.21	0.02	**24.52**	20 12	....	298 56 6.18	43.634	1 41.5	**44.9**	22 6	....
47	β Capricorni......	11	15 51.72	−0.03	−**24.42**	20 15	....	305 56 7.02	46.498	1 17.5	**44.0**	−15 5	....
48	B. D. −19° 5809	11	19 46.31	−0.02	−24.50	20 19 21.79	−3.74	301 18 7.08	42.134	1 32.4	43.8	−19 45 11.2	−15.7
49	B. D. −21° 5729	11	23 39.75	0.02	24.49	20 23 15.24	3.78	299 48 5.82	47.099	1 38.0	43.8	21 13 42.9	16.5
50	B. D. −17° 6007	11	26 7.91	0.03	24.49	20 25 43.39	3.72	303 34 6.98	44.846	1 24.7	43.8	17 28 11.7	17.0
51	B. D. −14° 5781	11	29 5.89	0.03	24.49	20 28 41.37	3.66	306 58 7.68	46.206	1 14.8	43.8	14 3 35.0	18.4
52	B. D. −22° 5484	11	32 21.04	0.02	24.48	20 31 56.54	3.85	298 14 6.95	48.948	1 44.5	43.8	22 47 12.7	15.5
53	υ Capricorni......	11	34 49.75	0.02	**24.47**	20 34	....	302 32 7.92	48.243	1 28.1	**43.5**	18 29	....
54	B. D. −13° 5736	11	37 34.89	−0.03	−24.48	20 37 10.38	−3.69	307 34 7.22	49.316	1 13.1	43.9	−13 26 34.2	−19.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
26 21 15	30.07	62.2	61.4
22 6	30.07	62.0	61.0
23 3	30.05	61.0	60.0
0 2	30.05	60.2	59.3
27 19 26	29.90	69.0	67.1
20 20	29.91	65.5	63.8

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

1, 53. Bisections at II, VI, VII.

Note.

Oct. 26. Cloudy at the beginning and at the end of work.

No.	Name.	Thds.	Mean Thread.	$c \sec \delta + n \tan \delta$	$\Delta T + m$	Apparent R. A.	Red. to 1900.0	Circle Reading.	Microm. Reading.	Refr.	Equator Point.	Apparent Decl.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	C. P. D. −24° 7074	11	40 52.85	−0.02	−24.48	20 40 28.35	−3.91	296 58 6.12	43.655	1 50.4	43.9	−24 5 1.1	−15.6
2	B. D. −18° 5783	11	44 8.52	0.02	24.47	20 43 44.03	3.81	302 38 7.30	45.626	1 27.8	43.9	18 23 59.6	17.8
3	B. D. −13° 5779	11	47 28.16	0.03	24.47	20 47 3.66	3.74	307 26 8.25	49.826	1 13.5	43.9	13 34 23.8	19.8
4	B. D. −22° 5572	11	51 34.13	0.02	24.47	20 51 9.64	3.92	298 40 7.25	43.104	1 42.8	43.9	22 23 2.9	16.9
5	B. D. 19° 5982	11	54 23.55	0.02	24.47	20 53 59.06	3.87	301 38 7.40	42.431	1 31.4	43.9	19 25 4.3	18.1
6	B. D. 10° 5578	11	57 39.11	−0.03	−24.46	20 57 14.62	−3.73	310 38 7.45	47.510	1 5.7	43.9	−10 23 1.2	−21.5
7	θ Capricorni......	11	0 47.92	0.02	−**24.42**	21 0	....	303 24 6.70	47.105	1 25.4	**44.7**	−17 37	....
8	B. D. −13° 5857	11	3 14.89	0.03	24.46	21 2 50.40	3.80	307 44 8.05	48.940	1 12.8	43.9	13 16 40.3	20.8
9	B. D. 9° 5674	11	5 51.69	0.03	24.46	21 5 27.20	3.76	311 16 7.72	46.791	1 4.3	43.9	9 45 13.4	22.2
10	B. D. 11° 5553	11	9 20.40	0.03	24.45	21 8 55.92	3.80	310 0 7.95	48.415	1 7.2	43.9	11 0 44.9	21.9
11	B. D. −14° 5997	11	14 47.34	0.03	24.45	21 14 22.86	3.87	306 36 7.32	44.989	1 15.9	43.9	14 25 59.9	21.1
12	B. D. −13° 5923	11	19 12.01	−0.03	−24.45	21 18 47.53	−3.88	307 44 7.50	44.650	1 12.9	44.0	−13 18 3.3	−21.7
13	B. D. −20° 6211	11	22 19.28	0.02	−24.45	21 21 54.81	4.00	300 24 5.92	45.076	1 36.0	44.0	−20 38 19.8	−19.3
14	β Aquarii.........	11	26 46.00	0.04	**24.43**	21 26	....	315 0 8.42	49.336	56.5	**43.6**	6 0	....
15	B. D. −10° 5714	11	32 1.28	0.03	24.44	21 31 36.81	3.89	310 24 8.30	47.741	1 6.3	44.0	10 36 56.7	23.3
16	B. D. −11° 5640	11	34 34.05	0.03	24.44	21 34 9.58	3.91	310 0 8.10	46.859	1 7.3	44.0	11 1 14.8	23.2
17	B. D. −12° 6065	11	37 4.42	0.03	24.44	21 36 39.95	3.94	308 20 7.45	45.001	1 11.4	44.0	12 41 55.1	22.8
18	B. D. −10° 5755	11	39 59.52	−0.03	−24.44	21 39 35.05	3.93	310 22 7.18	44.699	1 6.5	44.0	10 39 56.3	−23.6
19	B. D. 6° 5827	11	42 50.79	−0.04	−24.44	21 42 26.31	−3.89	314 38 8.35	48.979	57.2	44.0	6 22 23.8	−25.2
20	B. D. −9° 5854	11	45 44.25	0.03	24.43	21 45 19.79	3.94	311 34 7.12	49.096	1 3.7	44.0	9 26 29.3	24.3
21	B. D. −10° 5785	11	48 43.72	0.03	24.43	21 48 19.26	3.97	310 14 7.25	49.072	1 6.8	44.0	10 46 32.7	24.0
22	B. D. −10° 5795	11	51 33.76	0.03	24.43	21 51 9.30	3.97	310 58 7.52	46.875	1 5.1	44.1	10 3 13.0	24.3
23	B. D. −16° 5998	11	56 34.61	0.02	24.43	21 56 10.16	4.06	304 56 7.32	47.815	1 20.9	44.1	16 5 10.9	22.5
24	B. D. −5° 5697	11	59 50.23	0.04	24.43	21 59 25.76	3.96	315 42 8.92	46.922	55.2	44.1	−5 19 2.4	−26.2
25	B. D. −18° 6075	11	3 14.48	0.02	−24.42	22 2 50.04	−4.11	302 44 7.05	42.701	1 27.9	44.1	−18 18 56.2	−22.1
26	B. D. −4° 5625	11	5 49.42	0.04	24.42	22 5 24.96	3.98	316 16 8.78	46.696	54.2	44.1	4 45 4.3	26.6
27	B. D. −19° 6249	11	9 20.09	0.02	24.42	22 8 55.65	4.15	301 18 7.52	45.132	1 32.9	44.1	19 44 14.1	21.9
28	θ Aquarii.........	11	12 1.99	0.03	**24.47**	22 11 ...	....	312 44 8.58	49.011	1 1.3	**43.7**	8 16	....
29	B. D. −9° 5978	11	21 59.88	0.03	24.42	22 21 35.43	4.08	312 0 6.65	48.269	1 2.9	44.2	9 0 45.0	25.8
30	B. D. −5° 5806	11	25 43.80	0.04	−24.42	22 25 19.34	4.07	315 42 8.48	45.804	55.3	44.2	−5 19 22.9	−27.0
31	B. D. −17° 6554	11	31 12.98	−0.02	−24.41	22 30 48.55	−4.19	304 8 8.58	45.599	1 23.4	44.2	16 53 54.7	−23.6
32	B. D. −5° 5843	11	37 22.54	0.04	24.41	22 36 58.09	4.12	315 24 8.15	47.165	55.9	44.2	5 36 57.7	27.2
33	B. D. −2° 5826	11	42 49.50	0.04	24.41	22 42 25.05	4.13	318 42 8.22	48.369	49.8	44.3	2 18 28.6	28.3
34	B. D. −1° 4351	11	46 3.06	0.04	24.41	22 45 38.61	4.14	319 56 7.52	43.594	47.7	44.3	1 5 58.8	28.7
35	B. D. −12° 6374	11	49 19.38	0.02	24.41	22 48 54.95	4.21	308 18 8.78	48.285	1 11.7	44.3	12 42 51.4	25.4
36	B. D. −5° 5894	11	52 35.32	−0.04	−24.41	22 52 10.87	−4.18	315 40 7.02	49.559	55.3	44.3	−5 20 12.4	−27.6
37	B. D. −2° 5876	9	59 38.24	0.04	−24.40	22 59 13.80	−4.20	318 36 8.25	44.078	50.0	44.3	−2 25 52.7	−28.5
38	B. D. −12° 6426	11	2 39.07	0.02	24.40	23 2 14.65	4.25	308 40 8.15	49.768	1 10.8	44.4	12 20 22.8	25.8
39	B. D. −14° 6413	11	5 34.31	0.02	24.40	23 5 9.89	4.27	306 50 7.95	48.611	1 15.6	44.4	14 10 50.0	25.3
40	B. D. −10° 6082	11	8 14.68	0.03	24.40	23 7 50.25	4.26	310 54 7.40	49.449	1 5.4	44.4	10 6 24.3	26.5
41	B. D. −2° 5914	11	11 18.63	0.04	24.40	23 10 54.19	−4.24	319 4 7.85	44.630	49.2	44.4	1 57 40.2	−28.7
42	ψ_3 Aquarii........	11	14 14.35	−0.03	**24.42**	23 13	....	310 52 7.80	47.564	1 5.5	**44.8**	10 9	....
43	B. D. −10° 6098	11	17 8.14	−0.03	24.40	23 16 43.71	−4.28	310 42 7.80	50.330	1 5.9	44.5	10 18 7.6	26.6
44	B. D. −10° 6114	11	21 53.74	0.03	24.40	23 21 29.31	4.30	310 26 7.45	48.860	1 6.5	44.5	10 34 36.8	26.6
45	B. D. −2° 5973	11	24 47.78	0.04	24.40	23 24 23.34	4.30	318 40 8.78	49.768	49.9	44.5	2 20 1.5	28.6
46	B. D. −3° 5651	11	27 28.92	0.04	24.40	23 27 4.48	4.31	317 28 8.00	42.718	52.1	44.5	3 34 19.7	28.3
47	B. D. −11° 6110	11	30 45.94	0.02	24.40	23 30 21.52	4.33	309 56 7.62	44.478	1 7.8	44.5	11 6 1.9	26.5
48	B. D. −0° 4547	11	36 2.24	0.04	24.40	23 35 37.80	4.34	320 54 8.62	44.084	46.1	44.6	0 7 47.0	29.1
49	B. D. −3° 5697	11	39 53.27	−0.04	24.40	23 39 28.83	−4.35	317 18 7.80	45.894	52.3	44.6	3 43 19.2	−28.3
50	B. D. −5° 6048	11	42 59.60	−0.04	24.40	23 42 35.16	−4.36	316 0 8.55	48.226	54.8	44.6	5 0 36.3	28.0
51	B. D. +5° 5224	11	45 36.45	0.06	24.40	23 45 11.99	4.40	327 0 7.05	47.966	36.8	44.6	5 59 35.2	30.3
52	B. D. +4° 5066	11	49 27.05	0.05	24.40	23 49 2.60	4.41	325 20 7.98	47.578	39.2	44.6	4 19 26.3	29.9
53	B. D. +3° 4909	11	52 8.72	0.05	24.40	23 51 44.27	4.42	325 12 7.42	44.976	39.4	44.7	4 10 35.5	29.9
54	B. D. −2° 6071	11	54 55.44	0.04	24.40	23 54 31.00	4.40	318 38 8.92	43.645	50.0	44.7	2 23 59.1	28.4
55	30 Piscium	11	57 18.73	0.03	**24.40**	23 56	....	314 28 7.15	44.916	57.8	**44.2**	6 33	....
56	33 Piscium	11	0 41.85	−0.03	**24.37**	0 0	....	314 46 7.90	45.415	57.2	**44.9**	6 15 ...	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
27 21 15	29.91	63.5	62.6
22 6	29.92	62.5	61.3
22 51	29.92	61.8	60.7
23 31	29.93	61.5	60.4
0 1	29.92	61.0	60.4

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

24, 37. Bisections at VI, VII.

Notes.

38. Eyepiece not in good focus.
Oct. 27. Seeing fine, except at beginning.

1900 OCTOBER 29. CLAMP WEST.

EICHELBERGER, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT + m	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	*f* Sagittarii........	11	40 59.50	0.00	**24.20**	19 40	....	301 2 7.65	46.179	1 33.6	**42.2**	−19 59	....
2	B. D. −20° 5870	11	10 54.98	0.00	24.09	20 10 30.89	−3.69	300 42 8.38	47.539	1 35.0	43.1	20 19 28.2	−14.9
3	B. D. −19° 5776	11	14 5.19	0.00	24.08	20 13 41.11	3.68	301 36 7.95	47.008	1 31.8	43.1	19 25 35.6	15.4
4	B. D. −16° 5581	11	17 20.77	0.00	24.08	20 16 56.69	3.64	304 12 8.90	44.901	1 23.2	43.2	16 50 6.6	16.6
5	C. P. D. −25° 7071	11	20 44.79	+0.01	24.07	20 20 20.73	−3.84	295 46 6.38	46.741	1 56.8	43.2	25 16 7.3	13.8
6	*ρ* Capricorni......	11	23 37.28	0.00	**−24.13**	20 23	....	302 54 7.70	44.350	1 27.4	**43.8**	−18 8	....
7	C. P. D. −24° 7050	11	34 42.58	0.00	−24.05	20 34 18.53	3.87	296 54 7.25	46.444	1 51.3	43.3	−24 8 6.8	−15.1
8	B. D. −14° 5839	11	39 27.38	0.00	24.04	20 39 3.34	3.70	306 30 7.42	43.472	1 16.6	43.3	14 32 29.0	18.8
9	*ε* Aquarii.........	11	42 43.46	−0.01	**24.02**	20 42	....	311 10 8.02	46.319	1 4.8	**43.4**	9 51	....
10	B. D. −16° 5709	11	45 27.97	0.00	24.03	20 45 3.94	3.75	305 8 8.15	49.298	1 20.4	43.3	15 52 40.3	18.7
11	B. D. −12° 5854	11	48 5.12	0.01	24.03	20 47 41.08	3.69	309 4 8.22	48.426	1 9.8	43.3	11 56 46.4	20.3
12	B. D. −10° 5553	9	51 57.36	0.01	24.02	20 51 33.33	3.68	310 56 8.48	49.010	1 5.4	43.3	10 4 30.5	−21.2
13	B. D. −18° 5831	11	55 41.98	0.00	24.02	20 55 17.96	−3.83	303 6 7.20	48.831	1 26.8	43.4	−17 54 56.7	18.6
14	*θ* Capricorni......	11	0 47.45	0.00	**24.00**	21 0	....	303 24 8.25	47.000	1 25.9	**43.9**	17 37	....
15	B. D. −21° 5940	11	4 17.91	0.00	24.01	21 3 53.90	3.92	300 4 6.80	48.649	1 37.7	43.4	20 57 11.5	18.1
16	B. D. −17° 6216	11	9 58.91	0.00	24.00	21 9 34.91	3.89	303 16 7.40	47.990	1 26.3	43.4	17 45 12.1	19.6
17	B. D. −20° 6178	11	13 13.92	0.00	24.00	21 12 49.92	3.95	300 18 7.25	43.036	1 36.9	43.5	20 44 58.0	18.7
18	B. D. − 8° 5634	11	17 4.67	−0.01	−24.00	21 16 40.66	−3.77	313 4 8.30	49.201	1 0.7	43.5	− 7 56 22.6	23.4
19	B. D. −14° 6020	11	20 23.41	0.00	−24.00	21 19 59.41	−3.88	306 20 7.55	44.591	1 17.1	43.5	14 42 8.1	−21.2
20	B. D. −19° 6107	11	24 50.85	0.00	24.00	21 24 26.85	3.98	301 28 7.22	43.544	1 32.6	43.5	19 34 43.9	19.7
21	B. D. −16° 5885	11	28 36.71	0.00	23.99	21 28 12.72	3.94	304 24 7.32	41.971	1 22.8	43.5	16 38 6.7	21.0
22	B. D. 20° 6251	11	31 56.96	0.00	23.99	21 31 32.97	4.01	301 8 6.68	(44).296	1 33.8	43.6	19 54 31.4	20.0
23	*γ* Capricorni......	11	35 1.08	0.00	**24.00**	21 34	....	303 56 7.80	43.846	1 24.3	**43.6**	17 6	....
24	B. D. −15° 6046	11	38 5.05	0.00	−23.99	21 37 41.06	−3.96	306 12 8.18	41.732	1 17.6	43.6	−14 51 2.9	22.0
25	B. D. − 9° 5833	11	41 24.12	0.01	−23.99	21 41 0.12	−3.90	311 18 8.68	44.799	1 4.7	43.6	−9 43 50.7	24.0
26	B. D. −15° 6075	11	44 13.05	0.00	23.99	21 43 49.06	3.99	305 26 8.00	48.972	1 19.7	43.6	15 34 46.3	22.1
27	B. D. −17° 6397	11	47 39.76	0.00	23.99	21 47 15.77	4.03	303 30 7.38	46.109	1 25.7	43.6	17 31 47.8	21.6
28	B. D. −12° 6126	11	50 6.89	0.01	23.99	21 49 42.89	3.97	308 36 8.85	44.071	1 11.2	43.7	12 26 11.1	23.4
29	B. D. −15° 6103	11	52 49.01	0.00	23.99	21 52 25.02	4.02	305 26 8.15	46.531	1 19.7	43.7	15 35 33.1	22.5
30	B. D. −13° 6074	11	56 9.84	−0.01	−23.99	21 55 45.84	4.01	307 32 7.70	45.189	1 13.9	43.7	−13 29 53.5	23.3
31	B. D. −13° 6095	11	59 11.11	−0.01	−23.99	21 58 47.11	4.02	307 32 7.88	45.405	1 13.9	43.7	13 29 49.2	−23.4
32	B. D. − 11° 5756	11	2 26.56	0.01	23.98	22 2 2.57	4.01	310 6 7.78	45.496	1 7.5	43.7	10 55 41.1	24.4
33	B. D. −12° 6196	11	5 44.79	0.01	23.98	22 5 20.80	4.03	308 58 8.05	47.725	1 10.2	43.7	12 3 0.8	24.2
34	B. D. 12° 6227	11	11 53.21	0.01	23.98	22 11 29.22	4.06	308 52 7.75	49.664	1 10.5	43.8	12 8 24.3	24.4
35	B. D. − 8° 5855	11	15 24.25	0.01	23.98	22 15 0.26	4.04	312 42 8.58	47.372	1 1.6	43.8	8 18 58.6	25.7
36	B. D. 10° 5904	11	19 18.32	0.01	−23.98	22 18 54.33	4.07	310 20 8.25	45.122	1 7.0	43.8	10 41 47.4	−25.1
37	B. D. − 15° 6243	11	29 33.90	0.00	23.98	22 29 9.92	4 16	305 24 7.58	46.239	1 20.0	43.9	15 37 39.7	23.9
38	*κ* Aquarii........	11	33 2.69	0.02	**23.90**	22 32	....	316 16 8.90	49.155	54.5	**43.3**	4 44	....
39	B. D. 12° 6327	11	36 36.03	0.01	23.98	22 36 12.04	4.16	308 16 8.30	48.806	1 12.2	43.9	12 44 42.0	25.0
40	B. D. 3° 5505	10	42 30.57	0.02	23.98	22 42 6.57	4.12	317 48 8.80	44.650	51.7	43.9	3 13 40.8	28.0
41	B. D. − 7° 5886	11	49 49.85	0.01	23.99	22 49 25.85	4.17	313 18 8.45	44.940	1 0.5	44.0	7 43 44.5	26.8
42	B. D. 6° 6110	11	53 25.94	0.01	−23.99	22 53 1.94	−4.18	314 48 7.85	47.750	57.4	44.0	6 12 48.1	−27.3
43	B. D. 10° 6038	11	56 22.73	0.01	−23.99	22 55 58.73	4.21	310 56 8.30	47.925	1 5.7	44.0	10 4 52.5	26.2
44	B. D. − 3° 5576	11	4 25.37	0.02	23.99	23 3 59.36	4.21	318 2 8.85	46.121	51.3	44.1	2 59 12.4	28.4
45	B. D. 12° 6444	11	7 14.05	0.01	23.99	23 6 50.05	4.25	308 32 8.72	50.472	1 11.4	44.1	12 28 9.1	25.7
46	B. D. 11° 6032	11	9 55.75	0.01	23.99	23 9 31.75	4.26	309 48 7.82	46.092	1 8.4	44.1	11 13 31.0	26.1
47	*γ* Piscium........	11	12 27.19	0.02	**24.03**	23 12	....	323 46 9.18	45.166	41.8	**44.2**	2 44	....
48	B. D. − 4° 5868	11	15 33.11	0.02	24.00	23 15 9.09	4.26	316 34 8.98	45.794	54.0	44.1	− 4 27 21.2	−28.0
49	B. D. −11° 6064	11	18 18.31	0.01	24.00	23 17 54.30	−4.28	309 42 8.52	48.345	1 8.6	44.1	11 18 47.3	−26.2
50	B. D. − 7° 6012	11	21 52.46	0.01	24.00	23 21 28.45	4.28	313 52 9.22	47.214	59.3	44.2	7 8 59.1	27.4
51	B. D. −10° 6120	11	24 18.67	0.01	24.00	23 23 54.66	4.30	311 12 8.35	48.932	1 5.1	44.2	9 48 32.8	26.7
52	B. D. − 9° 6206	10	27 4.51	0.01	24.00	23 26 40.50	4.30	312 8 8.30	49.395	1 3.0	44.2	8 52 21.9	27.0
53	B. D. 4° 5029	11	29 46.87	0.02	24.00	23 29 22.85	4.32	325 56 9.20	47.882	38.5	44.2	4 55 34.4	30.4
54	*ι* Piscium........	11	35 16.75	0.02	**23.97**	23 34	....	326 6 8.95	47.815	38.3	**43.9**	−5 5	....
55	B. D. −2° 6021	11	37 42.11	−0.02	−24.01	23 37 18.08	−4.34	318 58 8.30	47.191	49.6	44.2	− 2 2 50.8	28.7

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
29 19 39	29.83	62.0	61.5
20 36	29.83	60.0	59.0
21 21	29.82	59.0	58.2
22 7	29.82	58.2	57.6
22 37	29.82	57.5	56.3
22 19	29.81	57.0	56.2

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

Notes

22. Micrometer reading changed one revolution to agree with observation of September 18, which agrees with Second Washington Catalogue.

42. Image unsteady and woolly.

No.	Name.	Thds.	Mean Thread.	c sec δ + n tan δ	ΔT + m	Apparent R. A.	Red. to 1900.0	Circle Reading.	Microm. Reading.	Refr.	Equator Point.	Apparent Decl.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. −0° 4566	11	41 55.79	−0.02	−24.01	23 41 31.76	−4.36	321 0 9.38	46.464	46.2	44.3	−0 1 0.4	−29.1
2	B. D. +0° 5054	11	44 48.64	0.02	24.02	23 44 24.60	4.37	321 32 8.82	48.759	45.3	44.3	+0 31 44.0	29.2
3	B. D. +1° 4792	11	48 25.80	0.02	24.02	23 48 1.76	4.39	322 34 9.22	44.984	43.7	44.3	1 32 33.6	29.4
4	B. D. +7° 5101	11	50 59.24	0.03	24.02	23 50 35.19	4.43	328 42 8.72	44.454	34.7	44.3	+7 40 31.8	30.6
5	B. D. −6° 6335	11	55 1.25	0.01	24.03	23 54 37.21	4.39	314 34 7.95	48.890	57.9	44.3	−6 26 26.9	−27.5
6	33 Piscium	11	0 41.49	0.01	**−24.05**	0 0	....	314 46 8.10	45.401	57.5	**44.6**	−6 15	....

1900 NOVEMBER 2. CLAMP WEST.

EICHELBERGER, OBSERVER. HAMMOND, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	c sec δ + n tan δ	ΔT + m	Apparent R. A.	Red. to 1900.0	Circle Reading.	Microm. Reading.	Refr.	Equator Point.	Apparent Decl.	Red. to 1900.0
7	B. D. −17° 5913	11	9 58.36	+0.01	23.13	20 9 35.24	3.55	303 54 8.00	42.268	1 24.1	43.5	−17 8 59.2	−15.7
8	4 Capricorni	11	12 35.69	0.02	**23.13**	20 12	....	298 56 7.30	43.579	1 42.1	**44.5**	22 6	....
9	B. D. −15° 5626	11	15 36.12	0.00	23.12	20 15 13.00	3.54	305 56 8.20	45.868	1 18.0	43.5	15 5 43.8	16.8
10	B. D. −17° 5975	11	21 16.73	0.01	23.12	20 20 53.62	3.61	303 20 7.80	45.595	1 25.9	43.6	17 41 57.5	16.3
11	B. D. −22° 5442	11	24 6.10	0.02	23.12	20 23 43.06	3.73	298 20 7.68	42.898	1 44.7	43.6	22 43 8.0	14.7
12	B. D. −19° 5852	11	29 9.51	+0.01	23.11	20 28 46.41	3.69	301 18 7.42	45.551	1 32.9	43.6	−19 44 5.6	−16.1
13	*υ* Capricorni	11	34 48.24	+0.01	**23.09**	20 34	....	302 32 7.95	48.190	1 28.6	**42.9**	−18 29	....
14	B. D. −13° 5736	11	37 33.38	0.00	23.11	20 37 10.27	3.61	307 34 8.78	49.205	1 13.6	43.7	13 26 35.1	−18.8
15	B. D. −16° 5690	11	40 4.77	0.00	23.10	20 39 41.67	3.67	304 52 8.00	47.250	1 21.2	43.7	16 9 20.9	18.0
16	B. D. −17° 6089	11	43 2.48	0.00	23.10	20 42 39.38	3.69	304 10 7.92	42.351	1 23.4	43.7	16 52 57.1	18.0
17	B. D. −21° 5852	11	47 2.40	0.01	23.10	20 46 39.31	−3.80	299 26 7.05	45.918	1 40.2	43.7	21 36 6.3	−16.5
18	*θ* Capricorni.......	11	0 46.44	+0.01	**23.06**	21 0	....	303 24 8.18	47.010	1 25.8	**44.3**	−17 37	....
19	*ν* Aquarii.........	11	4 35.67	0.00	**23.12**	21 4	....	309 14 7.82	50.080	1 9.4	**43.2**	−11 46	....
20	B. D. −21° 5974	11	10 23.30	+0.01	23.08	21 10 0.23	−3.88	299 58 7.30	47.025	1 38.1	43.9	21 3 43.0	−18.1
21	B. D. −13° 5901	11	13 32.64	0.00	23.08	21 13 9.56	3.76	308 0 8.25	49.260	1 12.5	43.9	13 0 33.7	21.1
22	B. D. −9° 5724	11	17 3.50	0.01	23.07	21 16 40.42	3.73	311 16 8.50	48.218	1 4.6	43.9	9 44 45.5	22.5
23	B. D. −18° 5935	11	21 8.15	0.01	23.07	21 20 45.09	3.88	302 28 7.58	44.000	1 29.1	44.0	18 34 32.5	19.6
24	B. D. −14° 6039	11	24 38.55	0.00	−23.07	21 24 15.48	3.83	306 34 7.82	46.909	1 16.4	44.0	−14 27 23.2	−21.2
25	B. D. −12° 6026	11	27 23.32	0.00	−23.07	21 27 0.25	−3.82	308 20 7.80	44.324	1 11.8	44.0	−12 42 8.2	−21.9
26	B. D. −14° 6080	11	31 43.67	0.00	23.06	21 31 20.61	3.86	307 8 7.62	44.950	1 15.0	44.0	13 53 59.5	21.7
27	B. D. −13° 5985	11	34 40.05	0.00	23.06	21 34 16.99	3.86	307 58 7.78	44.399	1 12.8	44.0	13 4 7.8	22.2
28	B. D. −19° 6152	11	37 31.49	+0.01	23.06	21 37 8.44	3.96	301 44 7.70	42.741	1 31.8	44.1	19 18 58.7	20.1
29	B. D. −9° 5829	11	40 7.30	−0.01	23.06	21 39 44.23	3.84	311 28 7.70	50.288	1 4.3	44.1	9 32 6.5	23.6
30	B. D. −14° 6128	11	43 33.70	0.00	−23.06	21 43 10.64	−3.92	306 24 7.65	46.940	1 17.0	44.1	−14 37 22.2	22.0
31	B. D. −8° 5753	11	46 12.04	−0.01	−23.05	21 45 48.98	−3.85	312 38 7.85	50.116	1 1.7	44.1	−8 22 7.1	−24.3
32	B. D. −18° 6037	11	51 42.72	+0.01	23.05	21 51 19.68	3.99	302 40 8.28	45.749	1 28.6	44.2	18 21 57.3	21.1
33	B. D. −10° 5812	11	56 57.95	−0.01	23.05	21 56 34.89	3.92	310 40 7.92	47.694	1 6.2	44.2	10 20 58.0	24.1
34	*ι* Aquarii	11	1 29.31	0.00	**23.11**	22 1	....	306 42 8.05	42.156	1 16.4	**44.6**	14 20	....
35	B. D. −19° 6227	11	3 57.05	+0.01	23.04	22 3 34.02	4.05	302 2 6.50	45.251	1 30.9	44.2	19 0 10.9	21.4
36	B. D. −14° 6229	11	7 29.26	0.00	23.04	22 7 6.22	4.01	306 20 7.80	48.838	1 17.4	44.3	14 40 47.5	23.0
37	B. D. −13° 6148	11	11 53.86	0.00	23.03	22 11 30.83	−4.01	307 42 8.20	46.662	1 13.7	44.3	−13 19 25.1	−23.6
38	B. D. −4° 5655	11	15 4.51	−0.02	23.03	22 14 41.46	−3.95	316 28 8.42	45.069	54.2	44 3	−4 33 36.0	−26.7
39	B. D. −15° 6208	11	18 25.20	0.00	23.03	22 18 2.17	4.06	305 36 7.38	42.975	1 19.7	44.3	15 26 42.6	23.2
40	B. D. −11° 5813	11	21 50.08	0.00	23.03	22 21 27.05	4.04	309 18 7.68	45.324	1 9.8	44.4	11 43 47.5	24.5
41	B. D. −15° 6231	11	25 22.93	0.00	23.02	22 24 59.91	4.08	305 56 7.70	46.918	1 18.7	44.4	15 5 25.8	23.5
42	B. D. −10° 5947	11	29 17.67	0.01	23.02	22 28 54.64	4.05	310 54 7.95	47.464	1 5.9	44.4	−10 7 2.3	25.3
43	B. D. +2° 4660	10	18 14.12	0.03	22.98	23 17 51.11	−4.22	323 18 10.25	45.352	42.6	44.7	+2 16 41.7	−29.6
44	*κ* Piscium	11	22 15.56	−0.03	**−22.91**	23 21	....	321 44 8.40	46.412	45.1	**44.4**	+0 42	....

1900 NOVEMBER 5. CLAMP WEST.

EICHELBERGER, OBSERVER. HAMMOND, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	c sec δ + n tan δ	ΔT + m	Apparent R. A.	Red. to 1900.0	Circle Reading.	Microm. Reading.	Refr.	Equator Point.	Apparent Decl.	Red. to 1900.0
45	C.P.D. −23° 7684	11	10 41.54	+0.01	−22.53	20 10 19.02	−3.63	297 14 7.45	44.410	1 49.2	43.1	−23 48 43.3	13.3
46	*β* Capricorni	11	15 49.65	0.00	**22.52**	20 15	....	305 56 7.50	46.414	1 17.7	**42.9**	15 5	....
47	C.P.D. −26° 6996	11	19 2.68	+0.01	22.53	20 18 40.16	3.71	294 54 7.35	43.726	2 1.0	43.2	26 9 8.3	13.0
48	*ρ* Capricorni	11	23 35.58	0.00	**22.55**	20 23	....	302 54	......	......	....	18 8	....
49	B. D. −13° 5773	11	45 37.25	0.01	−22.55	20 45 14.69	−3.57	308 8 7.18	42.878	1 12.0	43.2	−12 54 35.9	19.4

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
29 0 2	29.81	56.5	55.8
2 20 15	30.07	64.0	63.9
20 30	30.07	64.0	63.4
21 28	30.08	63.0	62.5
22 26	30.08	60.0	59.3
23 19	30.08	60.0	59.2
5 20 6	29.71	60.5	60.0

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

23, 43. Bisections at II, VI, VII.
30. Bisection at II.

Note.

Nov. 2. Cloudy throughout work

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT + m	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROM. READ-ING.	REFR.	EQUA-TOR POINT.	APPARENT DECL.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	C. P. D. -24° 7109	11	48 35. 19	0. 01	-22. 55	20 48 12. 65	-3. 80	296 24 7. 02	43. 068	1 53. 5	43. 3	-24 39 13. 9	-15. 4
2	B. D. -22° 5572	11	51 32. 14	0. 00	22. 55	20 51 9. 59	3. 77	298 40 5. 98	43. 116	1 43. 2	43. 3	22 23 3. 8	16. 4
3	B. D. -11° 5484	11	54 14. 70	0. 01	22. 55	20 53 52. 14	3. 58	309 56 7. 42	45. 355	1 7. 5	43. 3	11 5 43. 8	20. 6
4	B. D. -12° 5890	11	56 58. 87	0. 01	22. 55	20 56 36. 31	3. 61	308 56 7. 52	47. 976	1 10. 0	43. 3	12 4 55. 9	20. 4
5	B. D. -14° 5936	11	2 3. 35	0. 01	22. 55	21 1 40. 79	-3. 67	306 42 8. 05	47. 895	1 15. 8	43. 3	14 19 2. 7	-19. 8
6	ν Aquarii........	11	4 35. 06	-0. 01	**-22.55**	21 4	....	309 14 7. 42	50. 052	1 9. 2	**42.7**	-11 46	....
7	B. D. -13° 5891	11	10 57. 35	-0. 01	-22. 55	21 10 34. 79	-3. 70	307 24 7. 05	49. 052	1 14. 0	43. 3	-13 36 39. 7	-20. 6
8	B. D. -15° 5958	11	16 24. 81	0. 01	22. 55	21 16 2. 25	3. 75	305 28 7. 78	43. 699	1 19. 5	43. 3	15 34 27. 1	20. 2
9	B. D. -21° 6007	11	18 55. 78	0. 00	22. 56	21 18 33. 22	3. 85	299 46 5. 65	45. 272	1 38. 8	43. 3	21 16 18. 4	18. 3
10	B. D. - 7° 5565	11	22 31. 45	0. 02	22. 56	21 22 8. 87	3. 67	313 31 8. 10	48. 881	59. 6	43. 4	7 26 27. 7	23. 4
11	B. D. -10° 5696	11	26 39. 73	0. 01	22. 56	21 26 17. 16	3. 72	310 50 7. 45	49. 059	1 5. 6	43. 4	10 10 30. 9	22. 6
12	B. D. - 9° 5770	11	29 48. 94	-0. 02	-22. 56	21 29 26. 36	-3. 73	311 30 8. 35	45. 849	1 4. 1	43. 4	- 9 31 30. 1	-23. 0
13	B. D. -15° 6027	11	33 11. 49	0. 01	-22. 56	21 32 48. 92	-3. 82	305 40 7. 22	47. 356	1 18. 9	43. 4	-15 21 17. 1	-21. 1
14	B. D. - 9° 5809	11	36 3. 76	0. 02	22. 56	21 35 41. 18	3. 76	311 26 7. 98	46. 326	1 4. 3	43. 4	9 35 21. 5	23. 2
15	B. D. - 8° 5719	11	38 33. 59	0. 02	22. 56	21 38 11. 01	3. 75	313 10 7. 05	45. 544	1 0. 5	43. 4	7 51 31. 8	24. 0
16	δ Capricorni......	11	41 57. 81	0. 01	**22.56**	21 41	....	304 28 6. 92	43. 712	1 22. 6	**43.6**	16 34	....
17	B. D. -19° 6176	11	46 35. 15	0. 00	22. 56	21 46 12. 59	3. 93	301 58 6. 85	42. 598	1 30. 9	43. 4	19 5 0. 7	20. 4
18	B. D. - 6° 5878	11	53 25. 17	-0. 02	- 22. 56	21 53 2. 59	3. 80	315 8 7. 55	45. 458	56. 6	43. 4	- 5 53 30. 9	-25. 3
19	B. D. -18° 6056	11	57 8. 19	0. 00	-22. 56	21 56 45. 63	- 3. 96	302 40 6. 50	13. 616	1 28. 5	43. 5	-18 22 39. 2	21. 1
20	ι Aquarii.........	11	1 28. 74	-0. 01	**22.57**	22 1	....	306 40 6. 78	48. 430	1 16. 2	**44.1**	14 20	....
21	B. D. - 8° 5818	11	4 39. 69	0. 02	22. 56	22 4 17. 11	3. 88	313 0 7. 98	46. 698	1 1. 0	43. 5	8 1 11. 2	25. 0
22	B. D. - 5° 5732	11	7 57. 86	0. 02	22. 56	22 7 35. 28	3. 87	315 43 7. 58	48. 892	55. 3	43. 5	5 12 23. 9	26. 0
23	B. D. -10° 5879	11	12 58. 34	0. 02	22. 56	22 12 35. 76	3. 93	310 46 6. 25	50. 651	1 5. 9	43. 5	10 14 1. 9	24. 5
24	B. D. - 6° 5972	11	16 36. 27	-0. 02	-22. 55	22 16 13. 70	- 3. 92	314 16 7. 90	49. 182	58. 4	43. 5	- 6 44 21. 1	-25. 8
25	B. D. -18° 6114	11	19 35. 02	-0. 01	-22. 55	22 19 12. 46	-4. 04	302 56 7. 45	46. 841	1 27. 7	43. 5	-18 5 35. 6	-22. 0
26	B. D. - 6° 5996	11	23 4. 88	0. 02	22. 55	22 22 42. 31	3. 95	314 36 7. 25	48. 726	57. 7	43. 5	6 24 29. 8	26. 1
27	B. D. - 8° 5888¹	11	25 43. 62	0. 02	22. 55	22 25 21. 05	3. 98	312 24 7. 68	47. 155	1 2. 3	43. 5	8 37 4. 0	25. 4
28	B. D. - 3° 5472	11	30 37. 24	0. 02	22. 54	22 30 14. 68	3. 96	318 14 8. 10	49. 992	50. 8	43. 5	2 45 57. 8	27. 4
29	B. D. - 8° 5912	11	33 33. 94	0. 02	22. 54	22 33 11. 38	4. 01	312 36 7. 88	48. 601	1 1. 9	43. 5	8 24 35. 7	25. 7
30	B. D. - 3° 5491	11	38 14. 35	-0. 02	-22. 54	22 37 51. 79	-4. 00	317 50 8. 30	43. 941	51. 6	43. 6	- 3 11 54. 5	-27. 5
31	B. D. -11° 5912	11	41 24. 68	-0. 02	-22. 54	22 41 2. 12	-4. 06	309 20 6. 55	47. 552	1 9. 5	43. 6	-11 41 4. 8	-24. 8
32	τ Aquarii.........	11	44 44. 52	0. 01	**22.52**	22 44	....	306 54 8. 75	48. 578	1 15. 8	**43.8**	14 6	....
33	B. D. - 6° 6087	10	48 42. 92	0. 02	22. 53	22 48 20. 37	4. 06	314 30 8. 00	48. 176	58. 0	43. 6	6 30 40. 0	26. 6
34	B. D. - 4° 5793	11	52 23. 61	0. 02	22. 52	22 52 1. 07	4. 07	317 14 8. 12	48. 926	52. 7	43. 6	3 46 20. 2	27. 5
35	B. D. -14° 6413	11	5 32. 30	0. 01	22. 51	23 5 9. 78	4. 17	306 50 9. 00	48. 482	1 16. 1	43. 6	14 10 51. 1	24. 5
36	B. D. - 0° 4483	11	8 19. 45	-0. 03	-22. 51	23 7 56. 91	-4. 14	320 30 8. 02	48. 771	47. 0	43. 7	- 0 30 17. 7	28. 6
37	ψ_1 Aquarii........	11	11 5. 84	-0. 02	**-22.44**	23 10	....	311 24 8. 48	45. 820	1 4. 7	**43.3**	9 37	....
38	B. D. - 2° 5925	11	13 45. 44	0. 03	22. 50	23 13 22. 91	-4. 16	318 34 8. 78	49. 545	50. 4	43. 7	2 26 5. 5	-28. 1
39	B. D. - 9° 6173	11	16 27. 25	0. 02	22. 50	23 16 4. 73	4. 19	311 48 7. 62	47. 819	1 3. 8	43. 7	9 12 52. 5	26. 1
40	B. D. - 1° 4427	11	19 2. 78	0. 03	22. 50	23 18 40. 25	4. 19	319 36 8. 78	45. 372	48. 6	43. 7	- 1 25 23. 7	28. 4
41	κ Piscium........	11	22 15. 12	0. 03	**22.49**	23 21	....	321 44 9. 85	46. 302	45. 1	**43.9**	+ 0 42	....
42	B. D. + 0° 5009	11	26 0. 12	0. 03	22. 49	23 25 37. 60	4. 22	321 22 8. 28	43. 550	45. 7	43. 7	+ 0 20 3. 8	28. 7
43	B. D. - 5° 6011	11	28 46. 42	-0. 02	-22. 48	23 28 23. 92	4. 23	316 4 7. 78	47. 811	55. 0	43. 7	- 4 56 44. 3	27. 4
44	B. D. - 9° 6220	11	31 17. 37	-0. 02	-22. 48	23 30 54. 87	-4. 24	311 42 8. 12	48. 518	1 4. 1	43. 7	9 18 39. 5	-26. 2
45	B. D. - 8° 6166	11	36 5. 86	0. 02	22. 47	23 35 43. 37	4. 26	312 34 8. 75	45. 435	1 2. 3	43. 7	8 27 36. 2	26. 4
46	B. D. - 7° 6078	11	40 5. 66	0. 02	22. 47	23 39 43. 17	4. 27	313 32 8. 40	47. 165	1 0. 2	43. 8	7 29 1. 4	26. 7
47	B. D. - 0° 4585	11	50 6. 35	0. 03	22. 45	23 49 43. 87	4. 32	320 34 8. 05	48. 634	47. 1	43. 8	- 0 26 20. 5	28. 5
48	B. D. + 5° 5245	11	55 13. 77	0. 03	22. 44	23 54 51. 30	4. 37	326 26 8. 65	44. 656	38. 0	43. 8	+ 5 24 32. 9	29. 9
49	B. D. + 7° 5121	11	57 49. 84	0. 04	22. 44	23 57 27. 36	-4. 40	328 58 8. 38	43. 732	34. 5	43. 8	+ 7 56 18. 4	-30. 4
50	33 Piscium........	11	0 39. 91	-0. 02	**-22.50**	0 0	....	314 46 7. 62	45. 379	57. 8	**43.8**	- 6 15	....

1900 NOVEMBER 6. CLAMP WEST.

EICHELBERGER, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c SEC δ + n TAN δ	ΔT + m	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING.	MICROM. READ-ING.	REFR.	EQUA-TOR POINT.	APPARENT DECL.	RED. TO 1900. 0
51	B. D. -13° 5619	11	9 58. 65	0. 02	-22. 52	20 9 36. 11	-3. 41	307 20 7. 20	48. 191	1 15. 3	42. 7	-13 40 56. 8	-16. 8
52	4 Capricorni......	11	12 35. 12	0. 02	**22.60**	20 12	....	298 56 6. 98	43. 562	1 43. 8	**42.3**	22 6	....
53	β Capricorni......	11	15 49. 65	0. 02	**22.52**	20 15	....	305 56 6. 85	46. 499	1 19. 2	**42.5**	15 5	....
54	C. P. D.-25° 7071	11	20 43. 10	0. 01	22. 51	20 20 20. 58	-3. 68	295 46 5. 60	46. 865	1 58. 6	42. 7	25 16 7. 0	-13. 5
55	ρ Capricorni......	11	23 35. 46	-0. 02	**-22.42**	20 23	....	302 54 6. 30	44. 462	1 28. 8	**43.4**	- 18 8	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
5 21 5	29. 72	58. 0	57. 9
22 9	29. 73	56. 0	55. 8
22 53	29. 74	55. 0	54. 7
0 2	29. 77	53. 2	53. 0
6 20 6	29. 86	54. 0	52. 8

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

NO.	NAME.	THDS.	MEAN THREAD.	$c \sec \delta + n \tan \delta$	$\Delta T + m$	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.	MICROM. READING.	REFR.	EQUATOR POINT.	APPARENT DECL.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	r	′ ″	″	° ′ ″	″
1	B. D. 17° 6081	7	41 21.92	0.02	22.51	20 40 59.39	3.62	303 32 7.85	41.525	1 26.9	42.8	−17 31 16.3	−17.5
2	B. D. −16° 5709	11	45 26.42	0.02	22.51	20 45 3.89	3.61	305 10 7.28	43.148	1 21.8	42.8	15 52 40.0	18.3
3	B. D. −19° 5950	11	48 16.54	0.02	22.51	20 47 54.01	3.68	301 32 7.70	48.319	1 33.7	42.8	19 29 12.3	17.2
4	B. D. −15° 5848	11	53 35.81	0.02	22.50	20 53 13.29	3.63	306 10 6.78	45.612	1 18.8	42.8	14 51 50.3	19.1
5	B. D. −14° 5908	11	56 3.86	0.02	22.50	20 55 41.34	3.62	307 8 7.82	41.956	1 16.2	42.8	13 54 56.8	19.6
6	B. D. −20° 6115	11	59 9.18	−0.02	22.50	20 58 46.66	−3.74	300 48 5.92	43.751	1 36.6	42.8	−20 14 44.6	−17.5
7	B. D. −21° 5933	11	3 16.30	−0.02	22.50	21 2 53.78	−3.78	299 26 6.02	48.084	1 42.0	42.8	−21 35 26.7	−17.3
8	B. D. −15° 5908	11	6 36.15	0.02	22.50	21 6 13.63	3.68	306 10 7.00	43.416	1 18.9	42.8	14 52 32.3	19.9
9	B. D. −15° 5935	11	10 39.14	0.02	22.50	21 10 16.62	3.71	305 28 7.20	42.401	1 21.0	42.9	15 34 53.7	19.8
10	B. D. −20° 6178	11	13 12.31	0.02	22.50	21 12 49.79	3.80	300 18 5.72	43.131	1 38.7	42.9	20 44 58.8	18.1
11	ι Capricorni	11	17 7.06	0.02	**22.48**	21 16	....	303 46 7.48	47.638	1 26.2	**42.8**	17 15	....
12	B. D. −21° 6020	11	22 1.08	−0.02	22.49	21 21 38.57	−3.85	299 24 6.45	48.135	1 42.2	42.9	−21 37 25.6	−18.3
13	B. D. − 9° 5758	11	25 4.23	−0.03	−22.49	21 24 41.71	−3.68	311 58 7.72	50.574	1 4.2	42.9	− 9 1 59.7	−22.9
14	B. D. −16° 5885	11	28 35.10	0.02	22.49	21 28 12.59	3.80	304 24 7.08	44.998	1 24.3	42.9	16 38 7.3	20.4
15	B. D. −10° 5714	11	31 59.12	0.03	22.49	21 31 36.60	3.74	310 24 7.58	47.734	1 7.9	42.9	10 36 58.0	22.7
16	B. D. −11° 5640	11	34 31.92	0.03	22.49	21 34 9.40	3.76	310 0 6.95	46.892	1 8.9	42.9	11 1 15.8	22.6
17	B. D. −20° 6270	11	38 4.36	0.02	22.48	21 37 41.86	3.89	300 58 6.28	45.016	1 36.2	43.0	20 4 19.8	19.6
18	B. D. −18° 6013	11	42 38.90	−0.02	−22.48	21 42 16.40	3.89	302 22 6.65	45.041	1 31.1	43.0	−18 40 13.8	−20.3
19	B. D. − 9° 5854	11	45 42.10	−0.03	−22.48	21 45 19.59	−3.79	311 34 7.65	49.006	1 5.2	43.0	− 9 26 31.0	23.7
20	μ Capricorni	11	48 17.08	0.02	**22.49**	21 47	....	307 0 7.40	48.161	1 16.7	**43.3**	14 0	....
21	B. D. − 7° 5669	11	51 23.77	0.03	22.48	21 51 1.26	3.79	313 34 7.48	47.726	1 0.8	43.0	7 26 51.3	24.6
22	B. D. −15° 6119	11	56 28.52	0.02	22.47	21 56 6.03	3.90	306 14 6.58	45.120	1 18.9	43.0	14 48 0.2	22.2
23	B. D. − 9° 5908	11	59 40.05	0.03	22.47	21 59 17.55	3.85	311 50 7.02	45.630	1 4.7	43.0	9 11 35.9	24.3
24	B. D. −17° 6451	11	3 25.83	−0.02	−22.47	22 3 3.34	−3.95	304 0 6.48	46.804	1 25.7	43.0	−17 1 34.8	−21.8
25	B. D. −11° 5778	11	7 45.88	−0.03	−22.47	22 7 23.38	−3.90	310 6 7.12	48.308	1 8.7	43.0	−10 54 48.4	−24.0
26	B. D. −15° 6180	11	11 59.49	0.02	22.46	22 11 37.01	3.96	305 52 6.65	48.536	1 20.0	43.1	15 8 55.8	22.7
27	B. D. −12° 6243	11	15 22.32	0.02	22.46	22 14 59.84	3.95	308 18 7.45	47.875	1 13.3	43.1	12 43 1.0	23.6
28	B. D. − 4° 5663	11	17 52.68	0.03	22.46	22 17 30.19	3.89	316 46 7.78	49.954	54.4	43.1	4 14 2.0	26.6
29	B. D. − 5° 5790	11	21 20.53	0.03	22.46	22 20 58.04	3.92	315 20 7.60	47.945	57.3	43.1	5 40 43.6	26.2
30	B. D. −13° 6204	11	25 7.22	−0.02	−22.45	22 24 44.75	−4.00	307 36 8.00	47.291	1 15.2	43.1	−13 25 13.6	−23.7
31	κ Aquarii	11	33 1.12	−0.03	**−22.43**	22 32	....	316 16 7.95	49.499	55.5	**42.7**	− 4 44	....
32	B. D. −12° 6327	11	36 34.43	0.02	22.45	22 36 11.96	−4.04	308 16 7.10	48.886	1 13.4	43.2	12 44 42.2	−24.3
33	B. D. −15° 6265	11	39 28.60	0.02	22.44	22 39 6.14	4.07	305 50 7.10	46.294	1 20.2	43.2	15 11 38.7	23.5
34	B. D. − 6° 6074	11	43 32.45	0.03	22.44	22 43 9.98	4.03	314 44 6.80	46.324	58.6	43.2	6 17 16.9	26.5
35	B. D. −10° 6002	11	46 24.55	0.03	22.44	22 46 2.08	4.06	311 10 7.20	48.018	1 6.3	43.2	9 50 51.7	25.4
36	B. D. − 1° 4355	11	49 36.21	0.04	22.44	22 49 13.73	4.04	319 26 7.62	48.708	49.7	43.2	1 34 21.5	28.1
37	B. D. −11° 5961	11	53 18.79	−0.03	−22.43	22 52 56.33	−4.10	309 22 7.30	45.973	1 10.7	43.2	−11 39 34.7	−25.0
38	B. D. − 5° 5910	11	56 47.76	0.03	−22.43	22 56 25.30	−4.08	315 46 6.48	48.721	56.5	43.2	− 5 14 29.1	−27.1
39	B. D. − 6° 6147	8	3 6.54	0.03	22.42	23 2 44.09	4.11	314 48 6.58	44.580	58.5	43.2	6 13 52.1	26.8
40	B. D. − 8° 6040	11	5 38.81	0.03	22.42	23 5 16.36	4.13	312 40 7.68	48.660	1 3.0	43.2	8 20 36.2	26.2
41	B. D. −12° 6453	11	10 34.62	0.02	22.42	23 10 12.18	4.16	308 54 7.40	50.439	1 11.9	43.3	12 6 10.7	25.1
42	ψ₃ Aquarii	11	14 12.26	0.03	**22.44**	23 13	....	310 52 7.05	47.585	1 7.1	**43.7**	10 9	....
43	B. D. −10° 6105	11	18 32.76	0.03	22.41	23 18 10.32	−4.18	311 6 7.92	45.739	1 6.6	43.3	− 9 55 35.0	−25.9
44	κ Piscium	11	22 15.03	−0.04	**−22.40**	23 21	....	321 44 8.58	46.364	45.9	**43.0**	+ 0 42	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	in.	°	°
6 21 7	29.86	52.2	50.6
22 4	29.855	50.5	49.0
23 6	29.86	49.0	47.6
23 23	29.85	49.0	47.3

Telescope micrometer bisections are made at I, II, VI, VII, except as noted below.

1, 40. Bisections at II, VI, VII.
37. Bisections at I, II, VII.
39. Bisections at VI, VII.

Note.

Nov. 6. Thin clouds all night; seeing fine.

RESULTS

OF

OBSERVATIONS.

INDIVIDUAL RESULTS

OF

OBSERVATIONS OF ZODIACAL STARS

REDUCED TO 1900.0.

B. D. −21° 5522

1900	h	m	s	°	′	″
Oct. 16	19	42	6.34	−21	12	14.9

C. P. D. −23° 7590

1900	h	m	s	°	′	″
Oct. 11	19	44	18.41	−23	1	52.7
15			18.34			52.4
Mean	19	44	18.38	−23	1	52.6

C. P. D. −27° 6855

1900	h	m	s	°	′	″
Oct. 16	19	45	0.42	−27	43	31.0
17			0.43			30.2
Mean	19	45	0.42	−27	43	30.6

B. D. −21° 5556

1900	h	m	s	°	′	″
Oct. 11	19	46	59.24	−21	19	23.9
15			59.11			24.0
Mean	19	46	59.18	−21	19	24.0

B. D. −18° 5520

1900	h	m	s	°	′	″
Oct. 16	19	47	37.76	−18	10	0.8
17			37.71			0.4
Mean	19	47	37.74	−18	10	0.6

C. P. D. −26° 6880

1900	h	m	s	°	′	″
Oct. 11	19	49	42.89	−26	33	53.3
15			42.83			53.8
Mean	19	49	42.86	26	33	53.6

C. P. D. −23° 7614

1900	h	m	s	°	′	″
Oct. 16	19	50	42.30	−23	19	48.4
17			42.30			48.2
Mean	19	50	42.30	−23	19	48.3

B. D. −15° 5516

1900	h	m	s	°	′	″
Oct. 11	19	52	16.83	−15	45	25.1
15			16.75			24.4
Mean	19	52	16.79	−15	45	24.8

B. D. −18° 5553

1900	h	m	s	°	′	″
Oct. 6	19	53	17.30	−18	13	46.1
16			17.26			45.8
Mean	19	53	17.28	−18	13	46.0

C. P. D. −24° 6879

1900	h	m	s	°	′	″
Oct. 11	19	54	49.03	−24	27	33.7
15			48.93			34.5
Mean	19	54	48.98	−24	27	34.1

B. D. −17° 5832

1900	h	m	s	°	′	″
Oct. 6	19	55	48.87	−17	8	33.1
16			48.98			33.3
Mean	19	55	48.92	−17	8	33.2

B. D. −22° 5318

1900	h	m	s	°	′	″
Oct. 11	19	57	48.90	−22	52	33.5
15			48.74			34.2
Mean	19	57	48.82	−22	52	33.8

C. P. D. −27° 6933

1900	h	m	s	°	′	″
Oct. 6	19	59	6.12	−27	5	46.1
16			5.97			45.9
Mean	19	59	6.04	−27	5	46.0

B. D. −20° 5814

1900	h	m	s	°	′	″
Sept. 26	20	0	38.77	20	25	40.3
Oct. 15			38.56			39.9
Mean	20	0	38.66	−20	25	40.1

B. D. −17° 5860

1900	h	m	s	°	′	″
Sept. 24	20	1	20.39	−17	28	55.0
Oct. 11			20.47			54.4
Mean	20	1	20.43	−17	28	54.7

C. P. D. −24° 6906

1900	h	m	s	°	′	″
Oct. 6	20	1	41.96	−24	10	12.8
19			41.93			14.3
20			42.06			12.2
Mean	20	1	41.98	−24	10	13.1

B. D. −19° 5721

1900	h	m	s	°	′	″
Sept. 19	20	2	26.36	−19	5	35.3
Oct. 18			26.45			34.2
Mean	20	2	26.40	−19	5	34.8

B. D. −15° 5564

1900	h	m	s	°	′	″
Sept. 18	20	2	50.69	−15	19	5.6
Oct. 17			50.84			5.6
24			50.64			6.7
Mean	20	2	50.72	−15	19	6.0

B. D. −14° 5648

1900	h	m	s	°	′	″
Sept. 22	20	2	58.78	−14	32	39.8
Oct. 16			58.82			39.8
22			58.93			38.4
27			58.71			40.1
Mean	20	2	58.81	−14	32	39.5

B. D. −21° 5629

1900	h	m	s	°	′	″
Sept. 26	20	3	42.97	−20	53	2.1
Oct. 15			42.81			1.2
Mean	20	3	42.89	−20	53	1.6

C. P. D. −25° 7008

1900	h	m	s	°	′	″
Sept. 24	20	4	5.14	−25	34	36.5
Oct. 11			5.20			37.0
Mean	20	4	5.17	−25	34	36.8

C. P. D. −24° 6922

1900	h	m	s	°	′	″
Oct. 6	20	5	30.06	−24	31	20.6
18			29.92			19.9
24			29.88			19.9
Mean	20	5	29.95	−24	31	20.1

B. D. −22° 5354

1900	h	m	s	°	′	″
Sept. 19	20	5	31.36	−22	14	50.3
Oct. 17			31.50			50.1
22			31.36			48.8
27			31.29			50.4
Mean	20	5	31.38	−22	14	49.9

B. D. −15° 5576

1900	h	m	s	°	′	″
Sept. 18	20	5	39.04	−15	47	31.9
Oct. 16			39.08			31.8
19			39.11			32.6
20			39.01			31.9
Mean	20	5	39.06	−15	47	32.0

B. D. −13° 5608

1900	h	m	s	°	′	″
Sept. 22	20	6	51.55	−12	54	38.0
Oct. 11			51.70			37.8
26			51.56			37.4
Mean	20	6	51.60	−12	54	37.7

C. P. D. −26° 6950

1900	h	m	s	°	′	″
Sept. 26	20	6	52.93	−26	29	22.8
Oct. 15			52.69			22.3
Mean	20	6	52.81	−26	29	22.6

B. D. 22° 5372

1900	h	m	s	°	′	″
Oct. 6	20	8	25.26	−22	20	26.0
18			25.13			25.3
22			25.18			25.7
Mean	20	8	25.19	−22	20	25.7

B. D. −18° 5626

1900	h	m	s	°	′	″
Sept. 24	20	8	43.42	−18	23	49.1
Oct. 24			43.36			49.4
Mean	20	8	43.39	−18	23	49.2

B. D. −19° 5753

1900	h	m	s	°	′	″
Sept. 19	20	8	56.04	19	30	36.7
Oct. 19			55.97			37.4
Mean	20	8	56.00	19	30	37.0

C. P. D. 27° 6972

1900	h	m	s	°	′	″
Oct. 16	20	9	3.21	−27	19	53.3
27			3.15			53.7
Mean	20	9	3.18	27	19	53.5

B. D. −17° 5913

1900	h	m	s	°	′	″
Sept. 18	20	9	31.72	−17	9	14.6
Nov. 2			31.69			14.9
Mean	20	9	31.70	−17	9	14.8

B. D. −13° 5619

1900	h	m	s	°	′	″
Sept. 22	20	9	32.58	−13	41	13.9
Nov. 6			32.70			13.6
Mean	20	9	32.64	−13	41	13.8

B. D. −15° 5597

1900	h	m	s	°	′	″
Oct. 11	20	9	45.64	−15	5	13.3
20			45.54			13.6
Mean	20	9	45.59	−15	5	13.4

C. P. D. −23° 7684

1900	h	m	s	°	′	″
Oct. 15	20	10	15.20	−23	48	56.4
Nov. 5			15.39			56.6
Mean	20	10	15.30	−23	48	56.5

B. D. −20° 5870

1900	h	m	s	°	′	″
Oct. 17	20	10	27.32	−20	19	42.1
29			27.20			43.1
Mean	20	10	27.26	−20	19	42.6

B. D. −21° 5669

1900	h	m	s	°	′	″
Oct. 18	20	10	57.11	−21	14	24.5
22			57.15			24.3
Mean	20	10	57.13	−21	14	24.4

B. D. −15° 5606

1900	h	m	s	°	′	″
Sept. 19	20	11	7.87	15	29	18.8

B. D. −18° 5637

1900	h	m	s	°	′	″
Sept. 24	20	11	15.39	−18	44	21.4

B. D. −21° 5684

1900	h	m	s	°	′	″
Oct. 6	20	13	35.76	−21	15	47.9
26			35.66			48.0
Mean	20	13	35.71	−21	15	48.0

B. D. −19° 5776

1900	h	m	s	°	′	″
Oct. 15	20	13	37.45	19	25	49.8
29			37.43			51.0
Mean	20	13	37.44	−19	25	50.4

C. P. D. −25° 7042

1900	h	m	s	°	′	″
Oct. 17	20	13	46.31	−25	32	15.2
20			46.23			15.2
Mean	20	13	46.27	25	32	15.2

B. D. −17° 5936

1900	h	m	s	°	′	″
Oct. 18	20	14	0.58	−17	48	3.4
22			0.60			3.1
Mean	20	14	0.59	17	48	3.2

B. D. −13° 5642

1900	h	m	s	°	′	″
Sept. 22	20	15	7.00	−13	4	26.3
Oct. 24			7.11			25.6
Mean	20	15	7.06	−13	4	26.0

B. D. −15° 5626

1900	h	m	s	°	′	″
Sept. 18	20	15	9.52	−15	6	0.8
Nov. 2			9.46			0.6
Mean	20	15	9.49	−15	6	0.7

C. P. D. −23° 7723

1900	h	m	s	°	′	″
Oct. 11	20	15	34.61	−23	47	35.0
19			34.48			37.2
Mean	20	15	34.54	−23	47	36.1

B. D. −16° 5581

1900	h	m	s	°	′	″
Oct. 6	20	16	53.08	−16	50	22.2
17			53.15			21.7
29			53.05			23.2
Mean	20	16	53.09	−16	50	22.4

B. D. −22° 5419

1900	h	m	s	°	′	″
Sept. 26	20	18	29.40	−22	22	16.1
Oct. 18			29.33			16.8
24			29.37			17.0
Mean	20	18	29.37	−22	22	16.6

B. D. −13° 5661

1900	h	m	s	°	′	″
Sept. 19	20	18	32.82	−13	43	6.7
Oct. 15			32.83			6.2
20			32.93			6.7
Mean	20	18	32.86	13	43	6.5

C. P. D. −26° 6996

1900	h	m	s	°	′	″
Sept. 24	20	18	36 45	26	9	21.4
Oct. 11			36.50			20.8
22			36.38			20.6
Nov. 5			36.45			21.3
Mean	20	18	36.44	26	9	21.0

B. D. −19° 5809

1900	h	m	s	°	′	″
Sept. 18	20	19	18.13	19	45	26.9
Oct. 16			18.22			27.0
19			18.12			28.2
27			18.05			26.9
Mean	20	19	18.13	19	45	27.2

C. P. D. −25° 7071

1900	h	m	s	°	′	″
Oct. 6	20	20	16.91	−25	16	20.5
17			16.96			20.7
29			16.89			21.1
Nov. 6			16.90			20.5
Mean	20	20	16.92	−25	16	20.7

B. D. 17° 5975

1900	h	m	s	°	′	″
Sept. 22	20	20	50.04	17	42	13.9
Nov. 2			50.01			13.8
Mean	20	20	50.02	−17	42	13.8

B. D. 21° 5719

1900	h	m	s	°	′	″
Sept. 19	20	21	2.28	−21	8	9.3
Oct. 18			2.12			8.4
Mean	20	21	2.20	−21	8	8.8

B. D. −14° 5753

1900	h	m	s	°	′	″
Oct. 16	20	22	28.46	−14	19	37.2
19			28.46			37.9
Mean	20	22	28.46	−14	19	37.6

C. P. D. 24° 6997

1900	h	m	s	°	′	″
Sept. 18	20	22	48.67	−24	18	46.5
Oct. 22			48.69			46.6
Mean	20	22	48.68	−24	18	46.6

B. D. −16° 5609

1900	h	m	s	°	′	″
Oct. 17	20	23	5.65	−16	4	20.6
26			5.48			20.8
Mean	20	23	5.56	−16	4	20.7

B. D. −21° 5729

1900	h	m	s	°	′	″
Sept. 19	20	23	11.57	−21	13	58.8
Oct. 27			11.46			59.4
Mean	20	23	11.52	−21	13	59.1

B. D. −22° 5442

1900	h	m	s	°	′	″
Oct. 18	20	23	39.33	−22	43	22.8
Nov. 2			39.33			22.7
Mean	20	23	39.33	−22	43	22.8

B. D. −13° 5680

1900	h	m	s	°	′	″
Sept. 22	20	23	58.30	−12	55	25.9
Oct. 15			58.31			25.7
Mean	20	23	58.30	−12	55	25.8

B. D. −19° 5830

1900	h	m	s	°	′	″
Oct. 11	20	24	8.65	−18	55	1.4
20			8.65			2.8
Mean . . .	20	24	8.65	−18	55	2.1

B. D. −19° 5831

1900	h	m	s	°	′	″
Sept. 26	20	24	10.00	−18	54	51.2
Oct. 24			10.00			50.6
Mean	20	24	10.00	−18	54	50.9

B. D. −15° 5696

1900	h	m	s	°	′	″
Oct. 16	20	25	28.22	−15	23	25.7
22			28.24			25.8
Mean	20	25	28.23	−15	23	25.8

B. D. −17° 6007

1900	h	m	s	°	′	″
Sept. 18	20	25	39.79	17	28	29.4
Oct. 17			39.83			28.4
27			39.67			28.7
Mean	20	25	39.76	−17	28	28.8

C. P. D. −25° 7104

1900	h	m	s	°	′	″
Sept. 19	20	26	55.22	−25	16	53.2
Oct. 15			55.19			53.3
24			55.18			53.7
Mean	20	26	55.20	−25	16	53.4

B. D. −21° 5752

1900	h	m	s	°	′	″
Oct. 6	20	27	37.96	−21	14	13.8
20			37.91			13.5
Mean	20	27	37.94	−21	14	13.6

C. P. D. −23° 7796

1900	h	m	s	°	′	″
Oct. 11	20	28	14.39	−23	35	27.3
17			14.46			27.0
26			14.38			26.8
Mean	20	28	14.41	−23	35	27.0

B. D. −14° 5781

1900	h	m	s	°	′	″
Sept. 22	20	28	37.65	−14	3	52.7
Oct. 19			37.79			53.8
27			37.71			53.4
Mean	20	28	37.72	−14	3	53.3

B. D. −19° 5852

1900	h	m	s	°	′	″
Sept. 26	20	28	42.73	−19	44	21.5
Oct. 18			42.67			21.3
Nov. 2			42.72			21.7
Mean	20	28	42.71	−19	44	21.5

B. D. −18° 5714

1900	h	m	s	°	′	″
Sept. 18	20	29	42.98	−18	7	51.3
Oct. 16			42.98			51.2
22			42.98			50.8
Mean	20	29	42.98	−18	7	51.1

B. D. −17° 6027

1900	h	m	s	°	′	″
Sept. 19	20	29	52.83	−16	52	9.0
Oct. 15			52.77			9.2
24			52.81			8.9
Mean	20	29	52.80	−16	52	9.0

B. D. −21° 5768

1900	h	m	s	°	′	″
Oct. 6	20	30	39.34	−20	55	51.8
20			39.25			51.5
Mean	20	30	39.30	−20	55	51.6

B. D. −12° 5778

1900	h	m	s	°	′	″
Oct. 11	20	30	45.56	−12	43	38.6
17			45.67			38.1
26			45.50			37.8
Mean	20	30	45.58	−12	43	38.2

B. D. −22° 5484

1900	h	m	s	°	′	″
Sept. 24	20	31	52.63	−22	47	28.8
Oct. 18			52.64			28.0
27			52.69			28.2
Mean	20	31	52.65	−22	47	28.3

B. D. −11° 5379

1900	h	m	s	°	′	″
Sept. 22	20	32	27.75	−11	22	51.6
Oct. 16			27.86			52.0
19			27.82			52.7
Mean	20	32	27.81	−11	22	52.1

B. D. −15° 5743

1900	h	m	s	°	′	″
Sept. 19	20	33	40.86	−15	18	19.8
Oct. 11			40.87			19.4
Mean	20	33	40.86	−15	18	19.6

B. D. −20° 5995

1900	h	m	s	°	′	″
Sept. 18	20	33	48.38	−20	1	23.5
Oct. 20			48.29			23.8
Mean	20	33	48.34	−20	1	23.6

C. P. D. −24° 7050

1900	h	m	s	°	′	″
Oct. 6	20	34	14.87	−24	8	21.6
29			14.66			21.9
Mean	20	34	14.76	−24	8	21.8

B. D. −16° 5663

1900	h	m	s	°	′	″
Sept. 26	20	34	55.45	−16	28	47.9
Oct. 19			55.46			48.0
Mean	20	34	55.46	−16	28	48.0

B. D. −14° 5815

1900	h	m	s	°	′	″
Sept. 22	20	35	40.39	−13	51	16.9
Oct. 16			40.46			17.6
Mean	20	35	40.42	−13	51	17.2

B. D. −21° 5802

1900	h	m	s	°	′	″
Oct. 11	20	36	18.33	−21	37	51.6
20			18.33			51.7
Mean	20	36	18.33	−21	37	51.6

B. D. −13° 5736

1900	h	m	s	°	′	″
Sept. 19	20	37	6.69	13	26	53.2
Oct. 18			6.79			52.2
27			6.69			53.4
Nov. 2			6.66			53.9
Mean	20	37	6.71	−13	26	53.2

B. D. −12° 5808

1900	h	m	s	°	′	″
Sept. 26	20	38	6.03	−12	0	2.8
Oct. 19			5.93			2.8
Mean	20	38	5.98	−12	0	2.8

B. D. −19° 5905

1900	h	m	s	°	′	″
Sept. 18	20	38	11.79	19	42	10.3
Oct. 17			11.72			9.6
Mean	20	38	11.76	−19	42	10.0

B. D. −14° 5839

1900	h	m	s	°	′	″
Oct. 6	20	38	59.77	−14	32	47.8
16			59.62			47.0
29			59.64			47.8
Mean	20	38	59.68	−14	32	47.5

B. D. −11° 5408

1900	h	m	s	°	′	″
Oct. 15	20	39	9.69	−10	51	9.7
20			9.75			10.1
26			9.73			9.6
Mean	20	39	9.72	−10	51	9.8

B. D. −16° 5690

1900	h	m	s	°	′	″
Oct. 11	20	39	38.01	−16	9	38.8
18			38.07			38.7
Nov. 2			38.00			38.9
Mean	20	39	38.03	−16	9	38.8

B. D. −22° 5523

1900	h	m	s	°	′	″
Sept. 19	20	40	22.20	−21	52	39.6
Oct. 22			22.32			39.1
Mean	20	40	22.26	−21	52	39.4

C. P. D. −24° 7074

1900	h	m	s	°	′	″
Sept. 18	20	40	24.54	−24	5	17.3
Oct. 27			24.44			16.7
Mean	20	40	24.49	−24	5	17.0

B. D. −17° 6081

1900	h	m	s	°	′	″
Sept. 26	20	40	55.85	−17	31	34.2
Oct. 19			55.79			34.5
Nov. 6			55.77			33.8
Mean	20	40	55.80	17	31	34.2

C. P. D. −23° 7859

1900	h	m	s	°	′	″
Oct. 6	20	42	31.72	−23	6	14.2
26			31.66			13.3
Mean	20	42	31.69	−23	6	13.8

B. D. −17° 6089

1900	h	m	s	°	′	″
Oct. 15	20	42	35.68	−16	53	15.4
Nov. 2			35.69			15.1
Mean	20	42	35.68	−16	53	15.2

B. D. −21° 5840

1900	h	m	s	°	′	″
Sept. 19	20	43	28.34	−20	59	43.5
Oct. 19			28.34			43.8
Mean	20	43	28.34	−20	59	43.6

B. D. −18° 5783

1900	h	m	s	°	′	″
Sept. 18	20	43	40.27	−18	24	17.5
Oct. 27			40.22			17.4
Mean	20	43	40.24	−18	24	17.4

B. D. −11° 5434

1900	h	m	s	°	′	″
Oct. 11	20	43	57.02	−11	49	30.4
22			57.12			30.7
Mean	20	43	57.07	−11	49	30.6

B. D. −16° 5709

1900	h	m	s	°	′	″
Sept. 26	20	45	0.28	−15	52	58.2
Oct. 29			0.19			59.0
Nov. 6			0.28			58.3
Mean	20	45	0.25	−15	52	58.5

B. D. −13° 5773

1900	h	m	s	°	′	″
Oct. 6	20	45	11.16	−12	54	56.4
17			11.06			55.4
Nov. 5			11.12			55.3
Mean	20	45	11.11	−12	54	55.7

B. D. −14° 5866

1900	h	m	s	°	′	″
Oct. 16	20	45	46.56	−14	17	46.7
20			46.70			46.5
Mean	20	45	46.63	−14	17	46.6

B. D. −10° 5526

1900	h	m	s	°	′	″
Oct. 15	20	46	21.49	−10	41	30.5
19			21.56			31.0
Mean	20	46	21.52	−10	41	30.8

B. D. −20° 6055

1900	h	m	s	°	′	″
Sept. 19	20	46	33.03	−20	1	6.5
Oct. 26			33.06			5.8
Mean	20	46	33.04	−20	1	6.2

B. D. −21° 5852

1900	h	m	s	°	′	″
Sept. 18	20	46	35.60	21	36	23.8
Nov. 2			35.51			22.8
Mean	20	46	35.56	−21	36	23.3

B. D. −13° 5779

1900	h	m	s	°	′	″
Sept. 22	20	46	59.92	−13	34	43.2
Oct. 27			59.92			43.6
Mean	20	46	59.92	−13	34	43.4

B. D. −17° 6112

1900	h	m	s	°	′	″
Oct. 11	20	47	18.27	−17	22	54.2
22			18.29			53.8
Mean	20	47	18.28	−17	22	54.0

B. D. −12° 5854

1900	h	m	s	°	′	″
Sept. 26	20	47	37.51	−11	57	6.8
Oct. 29			37.39			6.7
Mean	20	47	37.45	−11	57	6.8

B. D. −19° 5950

1900	h	m	s	°	′	″
Oct. 6	20	47	50.36	−19	29	29.3
Nov. 6			50.33			29.5
Mean	20	47	50.34	−19	29	29.4

C. P. D. −24° 7109

1900	h	m	s	°	′	″
Oct. 17	20	48	8.86	−24	39	29.2
Nov. 5			8.85			29.3
Mean	20	48	8.86	−24	39	29.2

B. D. −18° 5805

1900	h	m	s	°	′	″
Sept. 19	20	49	8.89	−18	18	8.2
Oct. 26			8.81			7.4
Mean	20	49	8.85	−18	18	7.8

C. P. D. −23° 7879

1900	h	m	s	°	′	″
Sept. 18	20	49	15.36	−23	13	54.0
Oct. 20			15.33			54.1
Mean	20	49	15.34	−23	13	54.0

B. D. − 15° 5833

1900	h	m	s	°	′	″
Oct. 16	20	49	21.67	−15	39	45.6
19			21.73			45.8
Mean	20	49	21.70	15	39	45.7

B. D. − 13° 5791

1900	h	m	s	°	′	″
Oct. 11	20	50	9.60	−13	14	55.8
22			9.63			55.8
Mean	20	50	9.62	−13	14	55.8

B. D. −22° 5572

1900	h	m	s	°	′	″
Oct. 6	20	51	5.73	22	23	20.0
15			5.72			20.0
27			5.72			19.8
Nov. 5			5.82			20.2
Mean	20	51	5.75	−22	23	20.0

B. D. −10° 5553

1900	h	m	s	°	′	″
Sept. 26	20	51	29.78	−10	4	51.9
Oct. 29			29.65			51.7
Mean	20	51	29.72	−10	4	51.8

B. D. − 16° 5741

1900	h	m	s	°	′	″
Oct. 16	20	52	4.83	−16	24	58.3
26			4.81			58.9
Mean	20	52	4.82	−16	24	58.6

B. D. −12° 5876

1900	h	m	s	°	′	″
Sept. 19	20	52	33.86	−12	20	24.9
Oct. 20			33.88			24.4
Mean	20	52	33.87	−12	20	24.6

B. D. 15° 5848

1900	h	m	s	°	′	″
Sept. 22	20	53	9.61	−14	52	9.1
Oct. 22			9.70			9.2
Nov. 6			9.66			9.4
Mean	20	53	9.66	−14	52	9.2

B. D. −20° 6090

1900	h	m	s	°	′	″
Sept. 18	20	53	40.68	−20	49	54.9
Oct. 19			40.65			55.1
Mean	20	53	40.66	−20	49	55.0

B. D. −11° 5484

1900	h	m	s	°	′	″
Oct. 11	20	53	48.43	−11	6	3.9
18			48.44			3.7
Nov. 5			48.56			4.4
Mean	20	53	48.48	−11	6	4.0

B. D. −19° 5982

1900	h	m	s	°	′	″
Oct. 6	20	53	55.28	−19	25	22.4
15			55.20			21.8
27			55.19			22.4
Mean	20	53	55.22	−19	25	22.2

B. D. −18° 5831

1900	h	m	s	°	′	″
Sept. 19	20	55	14.11	−17	55	15.4
Oct. 29			14.13			15.3
Mean	20	55	14.12	−17	55	15.4

C. P. D. −23° 7896

1900	h	m	s	°	′	″
Oct. 16	20	55	36.68	−23	28	9.8
20			36.76			10.4
Mean	20	55	36.72	−23	28	10.1

B. D. −14° 5908

1900	h	m	s	°	′	″
Sept. 26	20	55	37.75	13	55	16.4
Oct. 22			37.72			15.6
Nov. 6			37.72			16.4
Mean	20	55	37.73	−13	55	16.1

B. D. −21° 5901

1900	h	m	s	°	′	″
Oct. 11	20	56	22.75	−21	43	28.1
19			22.80			28.9
Mean	20	56	22.78	−21	43	28.5

B. D. −12° 5890

1900	h	m	s	°	′	″
Oct. 6	20	56	32.69	−12	5	16.5
17			32.58			16.7
Nov. 5			32.70			16.3
Mean	20	56	32.66	−12	5	16.5

B. D. −16° 5769

1900	h	m	s	°	′	″
Sept. 18	20	57	0.62	−15	51	57.4
Oct. 18			0.57			56.8
26			0.56			55.9
Mean	20	57	0.58	−15	51	56.7

B. D. −10° 5578

1900	h	m	s	°	′	″
Sept. 19	20	57	10.99	−10	23	22.6
Oct. 15			10.83			22.8
27			10.89			22.7
Mean	20	57	10.90	−10	23	22.7

B. D. −20° 6115

1900	h	m	s	°	′	″
Oct. 16	20	58	42.82	−20	15	1.4
22			42.93			1.8
Nov. 6			42.92			2.1
Mean	20	58	42.89	−20	15	1.8

B. D. −11° 5524

1900	h	m	s	°	′	″
Sept. 26	21	0	26.31	−11	0	39.5
Oct. 20			26.36			39.3
Mean	21	0	26.34	−11	0	39.4

B. D. −14° 5936

1900	h	m	s	°	′	″
Oct. 6	21	1	37.15	−14	19	23.0
26			37.10			22.0
Nov. 5			37.12			22.5
Mean	21	1	37.12	−14	19	22.5

B. D. −19° 6024

1900	h	m	s	°	′	″
Oct. 11	21	1	49.94	−19	29	17.6
18			49.94			17.9
Mean	21	1	49.94	−19	29	17.8

B. D. −22° 5612

1900	h	m	s	°	′	″
Oct. 16	21	2	10.12	−22	44	13.3
22			10.21			13.1
Mean	21	2	10.16	−22	44	13.2

B. D. −13° 5857

1900	h	m	s	°	′	″
Sept. 19	21	2	46.60	−13	17	1.2
Oct. 17			46.61			0.6
27			46.60			1.1
Mean	21	2	46.60	−13	17	1.0

B. D. −21° 5933

1900	h	m	s	°	′	″
Sept. 18	21	2	50.07	−21	35	. . . .
Oct. 15			50.02			43.6
Nov. 6			50.00			44.0
Mean	21	2	50.03	−21	35	43.8

B. D. −21° 5940

1900	h	m	s	°	′	″
Sept. 26	21	3	50.00	−20	57	29.6
Oct. 29			49.98			29.6
Mean	21	3	49.99	−20	57	29.6

B. D. −16° 5810

1900	h	m	s	°	′	″
Oct. 6	21	4	34.99	−16	6	28.6
26			34.87			26.9
Mean	21	4	34.93	−16	6	27.8

B. D. −17° 6196

1900	h	m	s	°	′	″
Oct. 11	21	4	46.91	−17	21	50.3
19			46.82			51.4
Mean	21	4	46.86	−17	21	50.8

C. P. D. −23° 7931

1900	h	m	s	°	′	″
Oct. 16	21	4	52.87	−23	42	56.8
22			52.95			56.7
Mean	21	4	52.91	−23	42	56.8

B. D. −18° 5875

1900	h	m	s	°	′	″
Sept. 18	21	4	54.45	−18	44	15.6
Oct. 20			54.45			14.2
Mean	21	4	54.45	−18	44	14.9

B. D. −10° 5619

1900	h	m	s	°	′	″
Sept. 19	21	5	20.14	−10	36	59.7
Oct. 18			20.19			59.0
Mean	21	5	20.16	−10	36	59.4

B. D. −9° 5674

1900	h	m	s	°	′	″
Oct. 15	21	5	23.35	− 9	45	35.0
27			23.44			35.6
Mean	21	5	23.40	− 9	45	35.3

B. D. −15° 5908

1900	h	m	s	°	′	″
Sept. 26	21	6	9.96	−14	52	52.0
Oct. 17			9.88			52.1
Nov. 6			9.95			52.2
Mean	21	6	9.93	−14	52	52.1

B. D. −20° 6159

1900	h	m	s	°	′	″
Oct. 6	21	8	16.84	−20	30	2.2
26			16.78			2.0
Mean	21	8	16.81	−20	30	2.1

B. D. −22° 5630

1900	h	m	s	°	′	″
Oct. 16	21	8	17.09	−22	37	26.1
22			17.16			26.5
Mean	21	8	17.12	−22	37	26.3

B. D. −13° 5881

1900	h	m	s	°	′	″
Sept. 19	21	8	39.73	−12	52	45.1
Oct. 20			39.86			45.2
Mean	21	8	39.80	−12	52	45.2

B. D. −11° 5553

1900	h	m	s	°	′	″
Sept. 26	21	8	52.19	−11	1	7.7
Oct. 27			52.12			6.8
Mean	21	8	52.16	−11	1	7.2

B. D. −17° 6216

1900	h	m	s	°	′	″
Sept. 18	21	9	31.03	−17	45	32.0
Oct. 29			31.02			31.7
Mean	21	9	31.02	−17	45	31.8

B. D. −21° 5974

1900	h	m	s	°	′	″
Oct. 11	21	9	56.46	−21	4	1.5
Nov. 2			56.35			1.1
Mean	21	9	56.40	−21	4	1.3

B. D. −16° 5827

1900	h	m	s	°	′	″
Oct. 15	21	10	1.53	−16	30	21.6
19			1.52			22.0
Mean	21	10	1.52	−16	30	21.8

B. D. −15° 5935

1900	h	m	s	°	′	″
Oct. 17	21	10	12.77	−15	35	13.2
Nov. 6			12.91			13.5
Mean	21	10	12.84	−15	35	13.4

B. D. 13° 5891

1900	h	m	s	°	′	″
Sept. 19	21	10	30.97	−13	37	0.6
Nov. 5			31.09			0.3
Mean	21	10	31.03	−13	37	0.4

B. D. − 9° 5700

1900	h	m	s	°	′	″
Oct. 6	21	10	55.76	9	37	52.2
22			55.80			52.0
Mean	21	10	55.78	9	37	52.1

B. D. −18° 5903

1900	h	m	s	°	′	″
Sept. 18	21	12	20.82	18	24	15.2
Oct. 20			20.90			14.2
Mean	21	12	20.86	−18	24	14.7

B. D. −19° 6065

1900	h	m	s	°	′	″
Oct. 16	21	12	34.11	19	6	21.4
19			34.11			22.1
Mean	21	12	34.11	19	6	21.8

B. D. −20° 6178

1900	h	m	s	°	′	″
Oct. 11	21	12	46.00	20	45	16.7
29			45.97			16.7
Nov. 6			45.99			16 9
Mean	21	12	45.99	−20	45	16.8

B. D. −13° 5901

1900	h	m	s	°	′	″
Sept. 26	21	13	5.84	−13	0	55.0
Oct. 17			5.87			54.4
Nov. 2			5.80			54.8
Mean	21	13	5.84	13	0	54.7

B. D. 16° 5840

1900	h	m	s	°	′	″
Sept. 19	21	13	41.74	−16	35	58.6
Oct. 15			41.69			57.9
18			41.81			58.2
Mean	21	13	41.75	−16	35	58.2

B. D. − 14° 5997

1900	h	m	s	°	′	″
Oct. 6	21	14	19.04	−14	26	21.8
27			18.99			21.0
Mean	21	14	19.02	−14	26	21.4

B. D. −11° 5578

1900	h	m	s	°	′	″
Sept. 18	21	15	23.85	−11	46	23.6
Oct. 19			23.80			24.3
Mean	21	15	23.82	−11	46	24.0

B. D. −20° 6192

1900	h	m	s	°	′	″
Oct. 16	21	15	44.73	19	57	7.2
20			44.79			8.4
Mean	21	15	44.76	19	57	7.8

B. D. −15° 5958

1900	h	m	s	°	′	″
Oct. 11	21	15	58.49	15	34	47.4
17			58.52			47.4
Nov. 5			58.50			47.3
Mean	21	15	58.50	−15	34	47.4

B. D. −9° 5724

1900	h m s	° ′ ″
Nov. 2	21 16 36.69	−9 45 8.0

B. D. −8° 5634

1900	h m s	° ′ ″
Oct. 15	21 16 36.86	−7 56 45.4
18	36.94	45.3
29	36.89	46.0
Mean	21 16 36.90	−7 56 45.6

B. D. −9° 5728

1900	h m s	° ′ ″
Sept. 18	21 17 34.65	−9 44 44.2

B. D. −21° 6007

1900	h m s	° ′ ″
Oct. 16	21 18 29.43	−21 16 36.5
19	29.40	36.9
Nov. 5	29.37	36.7
Mean	21 18 29.40	−21 16 36.7

B. D. −13° 5923

1900	h m s	° ′ ″
Oct. 6	21 18 43.76	−13 18 25.4
17	43.68	25.8
27	43.65	25.0
Mean	21 18 43.70	−13 18 25.4

B. D. −17° 6262

1900	h m s	° ′ ″
Sept. 19	21 19 38.00	−16 49 56.8
Oct. 18	38.07	56.7
Mean	21 19 38.04	−16 49 56.8

B. D. −10° 5668

1900	h m s	° ′ ″
Sept. 26	21 19 50.68	−10 10 28.2
Oct. 26	50.63	28.0
Mean	21 19 50.66	−10 10 28.1

B. D. −14° 6020

1900	h m s	° ′ ″
Oct. 11	21 19 55.61	−14 42 28.5
29	55.53	29.3
Mean	21 19 55.57	−14 42 28.9

B. D. −18° 5935

1900	h m s	° ′ ″
Sept. 18	21 20 41.32	−18 34 52.4
Nov. 2	41.21	52.1
Mean	21 20 41.26	−18 34 52.2

B. D. −15° 5983

1900	h m s	° ′ ″
Oct. 15	21 20 56.58	−15 40 40.0
20	56.60	40.4
Mean	21 20 56.59	−15 40 40.2

B. D. −11° 5598

1900	h m s	° ′ ″
Oct. 16	21 21 2.55	−11 20 57.0
19	2.50	58.4
Mean	21 21 2.52	−11 20 57.7

B. D. −19° 6098

1900	h m s	° ′ ″
Oct. 6	21 21 26.26	−19 29 25.9
22	26.28	25.6
Mean	21 21 26.27	−19 29 25.8

B. D. −21° 6020

1900	h m s	° ′ ″
Sept. 19	21 21 34.75	−21 37 44.5
Nov. 6	34.72	43.9
Mean	21 21 34.74	−21 37 44.2

B. D. −20° 6211

1900	h m s	° ′ ″
Oct. 17	21 21 50.80	−20 38 39.6
27	50.81	39.1
Mean	21 21 50.80	−20 38 39.4

B. D. −7° 5565

1900	h m s	° ′ ″
Oct. 18	21 22 5.21	−7 26 50.1
Nov. 5	5.20	51.1
Mean	21 22 5.20	−7 26 50.6

B. D. −12° 5998

1900	h m s	° ′ ″
Sept. 26	21 22 13.40	−12 5 57.0

B. D. −22° 5692

1900	h m s	° ′ ″
Sept. 18	21 23 1.40	−22 14 33.9
Oct. 26	1.35	33.2
Mean	21 23 1.38	−22 14 33.6

B. D. −13° 5941

1900	h m s	° ′ ″
Oct. 11	21 23 56.74	−13 12 29.7
19	56.66	29.5
Mean	21 23 56.70	−13 12 29.6

B. D. −14° 6039

1900	h m s	° ′ ″
Oct. 6	21 24 11.72	−14 27 44.5
20	11.68	44.2
Nov. 2	11.65	44.4
Mean	21 24 11.68	−14 27 44.4

B. D. −19° 6107

1900	h m s	° ′ ″
Sept. 19	21 24 22.91	−19 35 4.3
Oct. 29	22.87	3.6
Mean	21 24 22.89	−19 35 4.0

B. D. −9° 5758

1900	h m s	° ′ ″
Oct. 17	21 24 37.94	−9 2 22.2
22	38.05	22.4
Nov. 6	38.03	22.6
Mean	21 24 38.01	−9 2 22.4

B. D. −17° 6302

1900	h m s	° ′ ″
Sept. 26	21 25 41.82	−17 41 55.8
Oct. 18	41.78	56.2
Mean	21 25 41.80	−17 41 56.0

B. D. −10° 5696

1900	h m s	° ′ ″
Oct. 15	21 26 13.33	−10 10 53.1
26	13.45	53.7
Nov. 5	13.44	53.5
Mean	21 26 13.41	−10 10 53.4

B. D. −12° 6026

1900	h m s	° ′ ″
Sept. 19	21 26 56.45	−12 42 30.5
Nov. 2	56.43	30.1
Mean	21 26 56.44	−12 42 30.3

B. D. 15° 6005

1900	h m s	° ′ ″
Oct. 17	21 27 11.51	−14 54 33.2
20	11.56	33.0
Mean	21 27 11.54	−14 54 33.1

B. D. −16° 5885

1900	h m s	° ′ ″
Oct. 6	21 28 8.82	−16 38 28.1
29	8.78	27.7
Nov. 6	8.79	27.7
Mean	21 28 8.80	−16 38 27.8

B. D. −20° 6237

1900	h m s	° ′ ″
Sept. 26	21 29 14.15	−20 31 49.5
Oct. 26	14.17	48.6
Mean	21 29 14.16	−20 31 49.0

B. D. −9° 5770

1900	h m s	° ′ ″
Oct. 15	21 29 22.58	−9 31 52.4
22	22.67	52.3
Nov. 5	22.63	53.1
Mean	21 29 22.63	−9 31 52.6

B. D. −19° 6131

1900	h m s	° ′ ″
Sept. 19	21 30 48.16	−18 50 21.4
Oct. 20	48.14	21.2
Mean	21 30 48.15	−18 50 21.3

B. D. −14° 6080

1900	h m s	° ′ ″
Oct. 16	21 31 16.75	−13 54 22.4
Nov. 2	16.75	21.2
Mean	21 31 16.75	−13 54 21.8

B. D. −20° 6251

1900	h m s	° ′ ″
Sept. 18	21 31 29.01	−19 54 51.2
Oct. 29	28.96	51.4
Mean	21 31 28.98	−19 54 51.3

B. D. −10° 5714

1900	h m s	° ′ ″
Oct. 17	21 31 32.87	−10 37 20.3
27	32.92	20.0
Nov. 6	32.86	20.7
Mean	21 31 32.88	−10 37 20.3

B. D. −12° 6044

1900	h m s	° ′ ″
Sept. 26	21 31 56.32	−11 54 33.3
Oct. 18	56.26	32.5
Mean	21 31 56.29	−11 54 32.9

B. D. −15° 6027

1900	h m s	° ′ ″
Sept. 19	21 32 45.10	−15 21 37.0
Oct. 26	45.09	37.7
Nov. 5	45.10	38.2
Mean	21 32 45.10	−15 21 37.6

B. D. −22° 5735

1900	h	m	s	°	′	″
Sept. 18	21	33	29.58	−22	9	52.8
Oct. 20			29.51			53.3
Mean	21	33	29.54	−22	9	53.0

B. D. −11° 5640

1900	h	m	s	°	′	″
Oct. 16	21	34	5.65	−11	1	38.3
27			5.67			38.0
Nov. 6			5.64			38.4
Mean	21	34	5.65	−11	1	38.2

B. D. −13° 5985

1900	h	m	s	°	′	″
Oct. 17	21	34	13.12	−13	4	29.8
Nov. 2			13.13			30.0
Mean	21	34	13.12	−13	4	29.9

B. D. −9° 5809

1900	h	m	s	°	′	″
Oct. 15	21	35	37.31	−9	35	44.5
22			37.44			44.2
Nov. 5			37.42			44.7
Mean	21	35	37.39	−9	35	44.5

B. D. −14° 6102

1900	h	m	s	°	′	″
Oct. 6	21	36	6.69	−14	29	37.1
26			6.68			36.9
Mean	21	36	6.68	−14	29	37.0

B. D. −12° 6065

1900	h	m	s	°	′	″
Oct. 16	21	36	35.99	−12	42	18.2
27			36.01			17.9
Mean	21	36	36.00	−12	42	18.0

B. D. −19° 6152

1900	h	m	s	°	′	″
Sept. 18	21	37	4.58	−19	19	19.4
Nov. 2			4.48			18.8
Mean	21	37	4.53	−19	19	19.1

B. D. −21° 6076

1900	h	m	s	°	′	″
Sept. 26	21	37	23.28	−20	52	5.3
Oct. 20			23.24			5.2
Mean	21	37	23.26	−20	52	5.2

B. D. −15° 6046

1900	h	m	s	°	′	″
Sept. 19	21	37	37.02	−14	51	25.1
Oct. 29			37.10			24.9
Mean	21	37	37.06	−14	51	25.0

B. D. −20° 6270

1900	h	m	s	°	′	″
Oct. 17	21	37	37.92	−20	4	39.3
Nov. 6			37.97			39.4
Mean	21	37	37.94	−20	4	39.4

B. D. −18° 5998

1900	h	m	s	°	′	″
Oct. 18	21	38	0.79	−17	50	38.2
22			0.81			37.4
Mean	21	38	0.80	−17	50	37.8

B. D. −8° 5719

1900	h	m	s	°	′	″
Oct. 15	21	38	7.21	−7	51	56.0
Nov. 5			7.26			55.8
Mean	21	38	7.24	−7	51	55.9

B. D. −15° 6052

1900	h	m	s	°	′	″
Oct. 6	21	38	33.44	−15	12	27.4
26			33.48			26.5
Mean	21	38	33.46	−15	12	27.0

B. D. −10° 5755

1900	h	m	s	°	′	″
Sept. 18	21	39	31.15	−10	40	20.5
Oct. 27			31.12			19.9
Mean	21	39	31.14	−10	40	20.2

B. D. −9° 5829

1900	h	m	s	°	′	″
Oct. 16	21	39	40.34	−9	32	30.6
Nov. 2			40.39			30.1
Mean	21	39	40.36	−9	32	30.4

B. D. −9° 5833

1900	h	m	s	°	′	″
Sept. 26	21	40	56.23	−9	44	14.7
Oct. 29			56.22			14.7
Mean	21	40	56.22	−9	44	14.7

B. D. −12° 6087

1900	h	m	s	°	′	″
Sept. 19	21	41	9.13	−11	49	38.8
Oct. 26			9.25			37.4
Mean	21	41	9.19	−11	49	38.1

B. D. −18° 6013

1900	h	m	s	°	′	″
Sept. 18	21	42	12.46	−18	40	34.1
Oct. 22			12.52			33.8
Nov. 6			12.51			34.1
Mean	21	42	12.50	−18	40	34.0

B. D. −6° 5827

1900	h	m	s	°	′	″
Oct. 16	21	42	22.36	−6	22	48.7
27			22.42			49.0
Mean	21	42	22.39	−6	22	48.8

B. D. −14° 6128

1900	h	m	s	°	′	″
Oct. 15	21	43	6.71	−14	37	45.1
Nov. 2			6.72			44.2
Mean	21	43	6.72	−14	37	44.6

B. D. −15° 6075

1900	h	m	s	°	′	″
Sept. 19	21	43	45.01	15	35	8.6
Oct. 29			45.07			8.4
Mean	21	43	45.04	15	35	8.5

B. D. -13° 6027

1900	h	m	s	°	′	″
Sept. 26	21	44	16.87	13	11	20.9
Oct. 18			16.89			20.7
Mean	21	44	16.88	−13	11	20.8

B. D. −17° 6389

1900	h	m	s	°	′	″
Sept. 18	21	44	43.09	−17	18	40.0
Oct. 26			43.02			39.6
Mean	21	44	43.06	−17	18	39.8

B. D. −12° 6104

1900	h	m	s	°	′	″
Oct. 17	21	44	49.07	−11	48	33.4
20			49.21			33.2
Mean	21	44	49.14	−11	48	33.3

B. D. −21° 6102

1900	h	m	s	°	′	″
Oct. 16	21	45	15.64	−21	0	28.8
22			15.75			28.1
Mean	21	45	15.70	−21	0	28.4

B. D. −9° 5854

1900	h	m	s	°	′	″
Oct. 11	21	45	15.87	−9	26	53.6
27			15.85			53.6
Nov. 6			15.80			54.7
Mean	21	45	15.84	−9	26	54.0

B. D. −8° 5753

1900	h	m	s	°	′	″
Sept. 19	21	45	45.18	−8	22	31.7
Nov. 2			45.13			31.4
Mean	21	45	45.16	−8	22	31.6

B. D. −19° 6176

1900	h	m	s	°	′	″
Oct. 15	21	46	8.72	−19	5	20.0
Nov. 5			8.66			21.1
Mean	21	46	8.69	−19	5	20.6

B. D. −16° 5961

1900	h	m	s	°	′	″
Sept. 26	21	47	5.56	−16	43	41.3
Oct. 19			5.66			40.3
Mean	21	47	5.61	−16	43	40.8

B. D. −17° 6397

1900	h	m	s	°	′	″
Oct. 18	21	47	11.75	−17	32	9.0
29			11.74			9.4
Mean	21	47	11.74	−17	32	9.2

B. D. −14° 6150

1900	h	m	s	°	′	″
Oct. 16	21	47	55.89	−14	39	36.3
22			55.96			36.0
Mean	21	47	55.92	−14	39	36.2

B. D. 10° 5785

1900	h	m	s	°	′	″
Oct. 17	21	48	15.20	10	46	57.1
27			15.29			56.7
Mean	21	48	15.24	−10	46	56.9

B. D. 12° 6126

1900	h	m	s	°	′	″
Sept. 26	21	49	38.99	−12	26	34.6
Oct. 15			38.95			34.0
18			39.01			33.7
29			38.92			34.5
Mean	21	49	38.97	−12	26	34.2

B. D. −7° 5669

1900	h	m	s	°	′	″
Oct. 11	21	50	57.54	−7	27	14.9
Nov. 6			57.47			15.9
Mean	21	50	57.50	−7	27	15.4

B. D. −10° 5795

1900	h	m	s	°	′	″
Sept. 18	21	51	5.28	−10	3	37.9
Oct. 27			5.33			37.3
Mean	21	51	5.30	−10	3	37.6

B. D. −18° 6037

1900	h	m	s	°	′	″
Sept. 19	21	51	15.65	−18	22	19.6
Nov. 2			15.69			18.4
Mean	21	51	15.67	−18	22	19.0

B. D. −19° 6190

1900	h	m	s	°	′	″
Oct. 16	21	51	32.68	−19	39	54.8
22			32.76			....
Mean	21	51	32.72	−19	39	54.8

B. D. −15° 6103

1900	h	m	s	°	′	″
Oct. 15	21	52	20.91	−15	35	55.6
29			21.00			55.6
Mean	21	52	20.96	−15	35	55.6

B. D. −9° 5876

1900	h	m	s	°	′	″
Oct. 17	21	52	21.17	−9	2	25.6

B. D. −12° 6134

1900	h	m	s	°	′	″
Oct. 18	21	52	55.08	−12	34	42.5
19			55.02			42.6
Mean	21	52	55.05	−12	34	42.6

B. D. −6° 5878

1900	h	m	s	°	′	″
Sept. 18	21	52	58.79	−5	53	57.0
Nov. 5			58.79			56.2
Mean	21	52	58.79	−5	53	56.6

B. D. −11° 5726

1900	h	m	s	°	′	″
Sept. 19	21	54	25.10	−10	47	25.1
Oct. 22			25.16			24.9
Mean	21	54	25.13	−10	47	25.0

B. D. −13° 6074

1900	h	m	s	°	′	″
Oct. 16	21	55	41.80	−13	30	15.6
29			41.83			16.8
Mean	21	55	41.82	−13	30	16.2

B. D. 12° 6150

1900	h	m	s	°	′	″
Oct. 15	21	55	50.78	−11	49	24.4
19			50.78			23.9
Mean	21	55	50.78	−11	49	24.2

B. D. −15° 6119

1900	h	m	s	°	′	″
Oct. 17	21	56	2.08	−14	48	22.4
Nov. 6			2.13			22.4
Mean	21	56	2.10	−14	48	22.4

B. D. −16° 5998

1900	h	m	s	°	′	″
Oct. 6	21	56	6.21	−16	5	33.9
27			6.10			33.4
Mean	21	56	6.16	−16	5	33.6

B. D. −10° 5812

1900	h	m	s	°	′	″
Sept. 18	21	56	30.99	−10	21	22.5
Nov. 2			30.97			22.1
Mean	21	56	30.98	−10	21	22.3

B. D. −18° 6056

1900	h	m	s	°	′	″
Sept. 19	21	56	41.69	−18	23	1.3
Nov. 5			41.67			0.3
Mean	21	56	41.68	−18	23	0.8

B. D. −7° 5688

1900	h	m	s	°	′	″
Oct. 18	21	58	0.92	−7	0	20.5

B. D. −8° 5789

1900	h	m	s	°	′	″
Oct. 16	21	58	15.81	−7	56	33.7
19			15.79			33.8
Mean	21	58	15.80	−7	56	33.8

B. D. −13° 6095

1900	h	m	s	°	′	″
Oct. 15	21	58	43.06	−13	30	12.2
29			43.09			12.6
Mean	21	58	43.08	−13	30	12.4

B. D. −16° 6012

1900	h	m	s	°	′	″
Oct. 6	21	58	45.54	−16	38	47.4
17			45.37			47.6
Mean	21	58	45.46	−16	38	47.5

B. D. −9° 5908

1900	h	m	s	°	′	″
Sept. 18	21	59	13.69	−9	12	0.3
Oct. 26			13.73			0.1
Nov. 6			13.70			0.2
Mean	21	59	13.71	−9	12	0.2

B. D. −5° 5697

1900	h	m	s	°	′	″
Sept. 19	21	59	21.78	−5	19	29.6
Oct. 22			21.69			28.9
27			21.80			28.6
Mean	21	59	21.76	−5	19	29.0

B. D. −15° 6139

1900	h	m	s	°	′	″
Sept. 26	22	0	46.75	−15	22	57.4
Oct. 18			46.80			56.8
Mean	22	0	46.78	−15	22	57.1

B. D. −20° 6362

1900	h	m	s	°	′	′
Oct. 6	22	1	54.98	−20	3	25.5
22			54.84			24.5
Mean	22	1	54.91	−20	3	25.0

B. D. −11° 5756

1900	h	m	s	°	′	″
Oct. 11	22	1	58.55	−10	56	5.3
29			58.56			5.5
Mean	22	1	58.56	−10	56	5.4

B. D. −6° 5912

1900	h	m	s	°	′	″
Sept. 19	22	2	27.29	−6	19	1.7
Oct. 26			27.22			1.7
Mean	22	2	27.26	−6	19	1.7

B. D. −18° 6075

1900	h	m	s	°	′	″
Oct. 17	22	2	45.91	−18	19	18.6
27			45.93			18.3
Mean	22	2	45.92	−18	19	18.4

B. D. −17° 6451

1900	h	m	s	°	′	″
Sept. 18	22	2	59.38	−17	1	57.1
Nov. 6			59.39			56.6
Mean	22	2	59.38	−17	1	56.8

B. D. −12° 6195

1900	h	m	s	°	′	″
Oct. 18	22	3	13.24	−12	6	7.5

B. D. −19° 6227

1900	h	m	s	°	′	″
Sept. 26	22	3	30.06	−19	0	33.4
Nov. 2			29.97			32.3
Mean	22	3	30.02	−19	0	32.8

B. D. −9° 5927

1900	h	m	s	°	′	″
Oct. 15	22	4	13.03	−9	17	26.4
19			13.06			26.4
Mean	22	4	13.04	−9	17	26.4

B. D. −8° 5818

1900	h	m	s	°	′	″
Oct. 16	22	4	13.30	−8	1	36.2
Nov. 5			13.23			36.2
Mean	22	4	13.26	−8	1	36.2

B. D. −15° 6152

1900	h	m	s	°	′	″
Oct. 6	22	4	24.26	−15	36	45.5

B. D. −11° 5770

1900	h	m	s	°	′	″
Sept. 19	22	5	11.76	−11	18	45.8
Oct. 26			11.78			46.5
Mean	22	5	11.77	−11	18	46.2

B. D. −12° 6196

1900	h	m	s	°	′	″
Oct. 11	22	5	16.80	−12	3	24.9
29			16.77			25.0
Mean	22	5	16.78	−12	3	25.0

B. D. −4° 5625

1900	h	m	s	°	′	″
Sept. 18	22	5	20.99	−4	45	31.2
Oct. 27			20.98			30.9
Mean	22	5	20.98	−4	45	31.0

B. D. −14° 6229

1900	h	m	s	°	′	″
Oct. 16	22	7	2.29	−14	41	10.0
Nov. 2			2.21			10.5
Mean	22	7	2.25	−14	41	10.2

B. D. −18° 6084

1900	h	m	s	°	′	″
Oct. 15	22	7	5.53	−18	31	15.1
19			5.54			14.8
Mean	22	7	5.54	−18	31	15.0

B. D. −11° 5778

1900	h	m	s	°	′	″
Oct. 6	22	7	19.57	−10	55	11.8
Nov. 6			19.48			12.4
Mean	22	7	19.52	−10	55	12.1

B. D. −7° 5727

1900	h	m	s	°	′	″
Sept. 19	22	7	27.43	−6	57	49.6

B. D. −5° 5732

1900	h	m	s	°	′	″
Oct. 17	22	7	31.25	−5	12	50.2
Nov. 5			31.41			49.9
Mean	22	7	31.33	−5	12	50.0

B. D. −13° 6130

1900	h	m	s	°	′	″
Sept. 18	22	7	39.03	−13	31	7.3
Oct. 20			39.07			7.5
Mean	22	7	39.05	−13	31	7.4

B. D. −19° 6249

1900	h	m	s	°	′	″
Oct. 18	22	8	51.52	−19	44	36.2
27			51.50			36.0
Mean	22	8	51.51	−19	44	36.1

B. D. −16° 6046

1900	h	m	s	°	′	″
Oct. 11	22	9	13.44	−16	18	17.2
26			13.37			17.2
Mean	22	9	13.40	−16	18	17.2

B. D. −17° 6478

1900	h	m	s	°	′	″
Oct. 16	22	10	50.32	−17	42	11.5
19			50.26			11.0
Mean	22	10	50.29	−17	42	11.2

B. D. −12° 6227

1900	h	m	s	°	′	″
Sept. 19	22	11	25.24	−12	8	48.0
Oct. 29			25.16			48.7
Mean	22	11	25.20	−12	8	48.4

B. D. −13° 6148

1900	h	m	s	°	′	″
Oct. 15	22	11	26.83	−13	19	48.3
Nov. 2			26.82			48.7
Mean	22	11	26.82	−13	19	48.5

B. D. −15° 6180

1900	h	m	s	°	′	″
Oct. 6	22	11	33.16	−15	9	17.9
Nov. 6			33.05			18.5
Mean	22	11	33.10	−15	9	18.2

B. D. −9° 5948

1900	h	m	s	°	′	″
Sept. 18	22	11	35.86	−9	32	19.1

B. D. −6° 5960

1900	h	m	s	°	′	″
Oct. 17	22	11	53.24	−5	53	12.1
26			53.28			11.8
Mean	22	11	53.26	−5	53	12.0

B. D. −18° 6096

1900	h	m	s	°	′	″
Oct. 11	22	12	5.58	−18	39	40.8
20			5.51			41.3
Mean	22	12	5.54	−18	39	41.0

B. D. −10° 5879

1900	h	m	s	°	′	″
Oct. 18	22	12	31.86	−10	14	26.8
Nov. 5			31.83			26.4
Mean	22	12	31.84	−10	14	26.6

B. D. −14° 6255

1900	h	m	s	°	′	″
Sept. 26	22	13	38.85	−13	48	20.3

B. D. −17° 6491

1900	h	m	s	°	′	″
Sept. 19	22	14	9.08	−17	12	12.4
Oct. 19			9.05			11.4
Mean	22	14	9.06	−17	12	11.9

B. D. −4° 5655

1900	h	m	s	°	′	″
Sept. 18	22	14	37.50	−4	34	3.4
Oct. 20			37.55			3.0
Nov. 2			37.51			2.7
Mean	22	14	37.52	−4	34	3.0

B. D. −12° 6243

1900	h	m	s	°	′	″
Oct. 16	22	14	55.86	−12	43	24.5
Nov. 6			55.89			24.6
Mean	22	14	55.88	−12	43	24.6

B. D. −8° 5855

1900	h	m	s	°	′	″
Oct. 11	22	14	56.25	−8	19	23.6
29			56.22			24.3
Mean	22	14	56.24	−8	19	24.0

B. D. −9° 5963

1900	h	m	s	°	′	″
Oct. 15	22	15	34.75	−9	16	3.5
18			34.78			3.2
Mean	22	15	34.76	−9	16	3.4

B. D. −6° 5972

1900	h	m	s	°	′	″
Sept. 26	22	16	9.89	−6	44	47.7
Oct. 17			9.74			47.0
Nov. 5			9.78			46.9
Mean	22	16	9.80	−6	44	47.2

B. D. −11° 5817

1900	h	m	s	°	′	″
Sept. 18	22	16	53.37	−11	21	6.7
Oct. 19			53.37			6.6
Mean	22	16	53.37	−11	21	6.6

B. D. −4° 5663

1900	h	m	s	°	′	″
Oct. 11	22	17	26.22	−4	14	28.0
Nov. 6			26.30			28.6
Mean	22	17	26.26	−4	14	28.3

B. D. −15° 6208

1900	h	m	s	°	′	″
Sept. 19	22	17	58.11	−15	27	5.8
Oct. 20			58.23			5.9
Nov. 2			58.11			5.8
Mean	22	17	58.15	−15	27	5.8

B. D. −7° 5765

1900	h	m	s	°	′	″
Oct. 9	22	18	17.47	−7	42	0.8
18			17.51			1.0
Mean	22	18	17.49	−7	42	0.9

B. D. −10° 5904

1900	h	m	s	°	′	″
Oct. 16	22	18	50.24	−10	42	12.2
29			50.26			12.5
Mean	22	18	50.25	−10	42	12.4

B. D. −14° 6276

1900	h	m	s	°	′	″
Sept. 26	22	19	5.79	−14	2	10.9
Oct. 19			5.75			10.0
Mean	22	19	5.77	−14	2	10.4

B. D. −18° 6114

1900	h	m	s	°	′	″
Sept. 18	22	19	8.52	−18	5	58.4
Oct. 17			8.47			57.8
Nov. 5			8.42			57.6
Mean	22	19	8.47	−18	5	57.9

B. D. −5° 5790

1900	h	m	s	°	′	″
Oct. 11	22	20	54.06	−5	41	9.3
20			54.19			9.7
Nov. 6			54.12			9.8
Mean	22	20	54.12	−5	41	9.6

B. D. −3° 5443

1900	h	m	s	°	′	″
Sept. 19	22	21	4.43	−3	17	42.4
Oct. 26			4.35			42.5
Mean	22	21	4.39	−3	17	42.4

B. D. −11° 5813

1900	h	m	s	°	′	″
Oct. 9	22	21	23.06	−11	44	11.4
22			23.00			12.2
Nov. 2			23.01			12.0
Mean	22	21	23.02	−11	44	11.9

B. D. −12° 6271

1900	h	m	s	°	′	″
Sept. 26	22	21	30.48	−11	51	30.0
Oct. 18			30.47			29.4
Mean	22	21	30.48	−11	51	29.7

B. D. −9° 5978

1900	h	m	s	°	′	″
Oct. 6	22	21	31.32	−9	1	10.5
16			31.29			10.3
27			31.35			10.8
Mean	22	21	31.32	9	1	10.5

B. D. − 6° 5996

1900	h m s	° ′ ″
Sept. 18	22 22 38.44	− 6 24 55.9
Oct. 15	38.39	56.4
17	38.36	56.2
Nov. 5	38.36	55.9
Mean	22 22 38.39	− 6 24 56.1

B. D. −16° 6092

1900	h m s	° ′ ″
Oct. 11	22 23 30.32	−16 39 45.6
20	30.41	46.0
Mean	22 23 30.36	−16 39 45.8

B. D. −10° 5929

1900	h m s	° ′ ″
Sept. 19	22 24 1.86	−10 10 26.6
Oct. 26	1.80	26.6
Mean	22 24 1.83	−10 10 26.6

B. D. − 4° 5683

1900	h m s	° ′ ″
Oct. 9	22 24 12.24	− 4 41 58.3
19	12.18	58.5
Mean	22 24 12.21	− 4 41 58.4

B. D. −13° 6204

1900	h m s	° ′ ″
Oct. 6	22 24 40.78	−13 25 37.7
Nov. 6	40.75	37.3
Mean	22 24 40.76	−13 25 37.5

B. D. −15° 6231

1900	h m s	° ′ ″
Oct. 16	22 24 55.86	−15 5 49.5
Nov. 2	55.83	49.3
Mean	22 24 55.84	−15 5 49.4

B. D. − 5° 5806

1900	h m s	° ′ ″
Oct. 15	22 25 15.19	− 5 19 50.2
27	15.27	49.9
Mean	22 25 15.23	− 5 19 50.0

B. D. − 8° 5888[1]

1900	h m s	° ′ ″
Oct. 18	22 25 17.15	− 8 37 29.3
Nov. 5	17.07	29.4
Mean	22 25 17.11	− 8 37 29.4

B. D. − 8° 5888[2]

1900	h m s	° ′ ″
Sept. 18	22 25 17.49	− 8 37 37.2

B. D. − 7° 5797

1900	h m s	° ′ ″
Sept. 19	22 26 3.77	− 7 3 55.9
Oct. 20	3.74	55.9
Mean	22 26 3.76	− 7 3 55.9

B. D. − 3° 5460

1900	h m s	° ′ ″
Oct. 11	22 26 8.26	− 3 25 24.6

B. D. −10° 5947

1900	h m s	° ′ ″
Oct. 9	22 28 50.61	−10 7 27.6
19	50.60	26.9
Nov. 2	50.59	27.6
Mean	22 28 50.60	−10 7 27.4

B. D. −15° 6243

1900	h m s	° ′ ″
Oct. 6	22 29 5.74	−15 38 3.6
20	5.73	3.2
29	5.76	3.6
Mean	22 29 5.74	−15 38 3.5

B. D. − 3° 5472

1900	h m s	° ′ ″
Oct. 11	22 30 10.69	− 2 46 25.8
Nov. 5	10.72	25.2
Mean	22 30 10.70	− 2 46 25.5

B. D. −17° 6554

1900	h m s	° ′ ″
Oct. 15	22 30 44.40	−16 54 18.4
27	44.36	18.3
Mean	22 30 44.38	−16 54 18.4

B. D. −12° 6315

1900	h m s	° ′ ″
Sept. 18	22 31 48.12	−12 14 55.9
Oct. 26	47.94	56.4
Mean	22 31 48.03	−12 14 56.2

B. D. − 6° 6034

1900	h m s	° ′ ″
Sept. 19	22 32 5.36	− 6 35 7.5

B. D. −14° 6317

1900	h m s	° ′ ″
Oct. 6	22 32 34.42	−13 53 22.5
19	34.43	22.4
Mean	22 32 34.42	−13 53 22.4

B. D. − 8° 5912

1900	h m s	° ′ ″
Oct. 17	22 33 7.42	− 8 25 2.1
Nov. 5	7.37	1.4
Mean	22 33 7.40	− 8 25 1.8

B. D. −14° 6320

1900	h m s	° ′ ″
Oct. 18	22 33 14.67	−14 35 13.3

B. D. −10° 5963

1900	h m s	° ′ ″
Oct. 15	22 34 0.36	−10 32 53.6

B. D. −12° 6327

1900	h m s	° ′ ″
Sept. 18	22 36 7.98	−12 45 7.1
Oct. 29	7.88	7.0
Nov. 6	7.92	6.5
Mean	22 36 7.93	−12 45 6.9

B. D. − 5° 5843

1900	h m s	° ′ ″
Sept. 19	22 36 53.81	− 5 37 24.7
Oct. 27	53.97	24.9
Mean	22 36 53.89	− 5 37 24.8

B. D. − 9° 6037

1900	h m s	° ′ ″
Oct. 6	22 37 44.98	− 9 40 37.1
19	45.00	36.9
Mean	22 37 44.99	− 9 40 37.0

B. D. − 3° 5491

1900	h m s	° ′ ″
Oct. 9	22 37 47.83	− 3 12 22.5
20	47.88	22.8
Nov. 5	47.79	22.0
Mean	22 37 47.83	− 3 12 22.4

B. D. − 7° 5838

1900	h m s	° ′ ″
Sept. 26	22 38 0.91	− 7 29 12.1
Oct. 26	0.96	11.2
Mean	22 38 0.94	− 7 29 11.6

B. D. −16° 6142

1900	h m s	° ′ ″
Oct. 11	22 38 11.16	−16 39 39.5

B. D. −15° 6265

1900	h m s	° ′ ″
Sept. 18	22 39 2.12	−15 12 2.6
Nov. 6	2.07	2.2
Mean	22 39 2.10	−15 12 2.4

B. D. −13° 6262

1900	h m s	° ′ ″
Sept. 19	22 40 9.07	−13 31 53.8
Oct. 26	9.03	53.7
Mean	22 40 9.05	−13 31 53.8

B. D. −12° 6342

1900	h m s	° ′ ″
Oct. 6	22 40 50.79	−12 3 53.5
19	50.78	52.9
Mean	22 40 50.78	−12 3 53.2

B. D. −11° 5912

1900	h m s	° ′ ″
Oct. 11	22 40 58.13	−11 41 30.5
18	58.14	30.3
Nov. 5	58.06	29.6
Mean	22 40 58.11	−11 41 30.1

B. D. −3° 5505

1900	h m s	° ′ ″
Oct. 9	22 42 2.46	− 3 14 7.5
29	2.45	8.8
Mean	22 42 2.46	− 3 14 8.2

B. D. −7° 5858

1900	h m s	° ′ ″
Sept. 26	22 42 9.34	− 7 15 27.6
Oct. 20	9.34	27.6
Mean	22 42 9.34	− 7 15 27.6

B. D. −2° 5826

1900	h m s	° ′ ″
Sept. 18	22 42 20.89	− 2 18 57.5
Oct. 27	20.92	56.9
Mean	22 42 20.90	− 2 18 57.2

B. D. −14° 6346

1900	h m s	° ′ ″
Sept. 19	22 42 24.27	−14 35 0.8

B. D. −6° 6074

1900	h m s	° ′ ″
Oct. 16	22 43 5.95	− 6 17 42.9
Nov. 6	5.95	43.4
Mean	22 43 5.95	− 6 17 43.2

B. D. −8° 5952

1900	h	m	s	°	′	″
Oct. 17	22	43	8.96	− 8	38	25.3

B. D. −11° 5923

1900	h	m	s	°	′	″
Oct. 10	22	43	14.56	−11	5	1.8

B. D. −5° 5866

1900	h	m	s	°	′	″
Oct. 6	22	43	19.75	− 5	6	12.8
19			19.58			12.4
26			19.66			12.4
Mean	22	43	19.66	− 5	6	12.5

B. D. −13° 6283

1900	h	m	s	°	′	″
Sept. 26	22	45	16.88	−13	13	13.1
Oct. 20			17.00			12.8
Mean	22	45	16.94	−13	13	13.0

B. D. −1° 4351

1900	h	m	s	°	′	″
Sept. 18	22	45	34.49	− 1	6	28.2
Oct. 27			34.47			27.5
Mean	22	45	34.48	− 1	6	27.8

B. D. −10° 6002

1900	h	m	s	°	′	″
Oct. 9	22	45	58.02	− 9	51	16.7
Nov. 6			58.02			17.1
Mean	22	45	58.02	− 9	51	16.9

B. D. −10° 6008

1900	h	m	s	°	′	″
Sept. 19	22	47	30.23	−10	35	24.8
Oct. 18			30.14			24.9
Mean	22	47	30.18	−10	35	24.8

B. D. −3° 5521

1900	h	m	s	°	′	″
Oct. 11	22	47	30.53	− 3	9	26.1
26			30.54			26.3
Mean	22	47	30.54	− 3	9	26.2

B. D. −12° 6371

1900	h	m	s	°	′	″
Oct. 15	22	48	12.92	−12	8	53.6
20			12.90			54.2
Mean	22	48	12.91	−12	8	53.9

B. D. −6° 6087

1900	h	m	s	°	′	″
Sept. 26	22	48	16.24	− 6	31	7.3
Nov. 5			16.31			6.6
Mean	22	48	16.28	− 6	31	7.0

B. D. −12° 6374

1900	h	m	s	°	′	″
Oct. 9	22	48	50.73	−12	43	16.9
27			50.74			16.8
Mean	22	48	50.74	−12	43	16.8

B. D. −1° 4355

1900	h	m	s	°	′	″
Sept. 18	22	49	9.68	− 1	34	48.6
Nov. 6			9.69			49.6
Mean	22	49	9.68	− 1	34	49.1

B. D. −7° 5886

1900	h	m	s	°	′	″
Sept. 19	22	49	21.78	− 7	44	10.8
Oct. 29			21.68			11.3
Mean	22	49	21.73	− 7	44	11.0

B. D. −14° 6370

1900	h	m	s	°	′	″
Oct. 6	22	50	53.15	−14	5	18.4
17			53.17			18.4
Mean	22	50	53.16	−14	5	18.4

B. D. −15° 6305

1900	h	m	s	°	′	″
Sept. 26	22	51	12.48	−15	31	23.8
Oct. 20			12.63			24.0
Mean	22	51	12.56	−15	31	23.9

B. D. −11° 5953

1900	h	m	s	°	′	″
Oct. 11	22	51	34.81	−10	47	48.1
19			34.77			47.7
26			34.84			48.2
Mean	22	51	34.81	−10	47	48.0

B. D. −4° 5793

1900	h	m	s	°	′	″
Oct. 9	22	51	57.03	− 3	46	47.4
Nov. 5			57.00			47.7
Mean	22	51	57.02	− 3	46	47.6

B. D. −5° 5894

1900	h	m	s	°	′	″
Sept. 18	22	52	6.64	− 5	20	40.7
Oct. 27			6.69			40.0
Mean	22	52	6.66	− 5	20	40.4

B. D. −11° 5961

1900	h	m	s	°	′	″
Sept. 19	22	52	52.16	−11	40	0.0
Nov. 6			52.23		39	59.7
Mean	22	52	52.20	−11	39	59.8

B. D. −6° 6110

1900	h	m	s	°	′	″
Oct. 18	22	52	57.94	− 6	13	14.9
29			57.76			15.4
Mean	22	52	57.85	− 6	13	15.2

B. D. −3° 5539

1900	h	m	s	°	′	″
Oct. 10	22	53	6.54	− 2	55	48.3
24			6.48			49.1
Mean	22	53	6.51	− 2	55	48.7

B. D. −8° 5991

1900	h	m	s	°	′	″
Oct. 6	22	53	46.93	− 8	44	57.0
17			46.86			56.5
20			46.84			56.2
Mean	22	53	46.88	− 8	44	56.6

B. D. −13° 6318

1900	h	m	s	°	′	″
Sept. 26	22	54	19.67	−13	36	23.9
Oct. 16			19.82			24.2
Mean	22	54	19.74	−13	36	24.0

B. D. −9° 6100

1900	h	m	s	°	′	″
Sept. 18	22	55	6.66	− 9	24	58.0
Oct. 26			6.58			58.1
Mean	22	55	6.62	− 9	24	58.0

B. D. −0° 4443

1900	h	m	s	°	′	″
Oct. 9	22	55	30.22	− 0	21	4.1
18			30.18			4.2
Mean	22	55	30.20	− 0	21	4.2

B. D. −10° 6038

1900	h	m	s	°	′	″
Oct. 11	22	55	54.56	−10	5	18.3
29			54.52			18.7
Mean	22	55	54.54	−10	5	18.5

B. D. −15° 6325

1900	h	m	s	°	′	″
Sept. 19	22	56	8.14	−14	48	26.6
Oct. 19			8.11			26.7
Mean	22	56	8.12	−14	48	26.6

B. D. −5° 5910

1900	h	m	s	°	′	″
Oct. 6	22	56	21.28	− 5	14	56.6
17			21.19			56.2
Nov. 6			21.22			56.2
Mean	22	56	21.23	− 5	14	56.3

B. D. −3° 5553

1900	h	m	s	°	′	″
Oct. 10	22	56	46.26	− 3	13	23.4
24			46.22			24.0
Mean	22	56	46.24	− 3	13	23.7

B. D. −12° 6404

1900	h	m	s	°	′	″
Sept. 18	22	57	17.94	−11	48	12.1
Oct. 20			17.90			11.8
Mean	22	57	17.92	−11	48	12.0

B. D. −7° 5913

1900	h	m	s	°	′	″
Sept. 26	22	57	21.03	− 7	6	39.9
Oct. 16			21.13			39.7
Mean	22	57	21.08	− 7	6	39.8

B. D. −1° 4382

1900	h	m	s	°	′	″
Oct. 9	22	58	1.01	− 0	57	47.3
18			0.99			47.4
Mean	22	58	1.00	− 0	57	47.4

B. D. −5° 5917

1900	h	m	s	°	′	″
Sept. 19	22	58	44.81	− 5	20	5.2
Oct. 26			44.73			5.1
Mean	22	58	44.77	− 5	20	5.2

B. D. −2° 5876

1900	h	m	s	°	′	″
Oct. 6	22	59	9.57	− 2	26	22.1
15			9.57			21.6
27			9.60			21.2
Mean	22	59	9.58	− 2	26	21.6

B.D. −12° 6413

1900	h m s	° ′ ″
Oct. 11	22 59 15.54	−12 43 4.3
17	15.52	4.5
Mean	22 59 15.53	−12 43 4.4

B. D. −8° 6018

1900	h m s	° ′ ″
Sept. 26	22 59 56.92	− 8 14 1.2
Oct. 10	57.05	0.4
24	56.95	0.5
Mean	22 59 56.97	− 8 14 0.7

B. D. +0° 4963

1900	h m s	° ′ ″
Oct. 16	23 0 10.65	+ 0 46 5.4
19	10.64	5.2
Mean	23 0 10.64	+ 0 46 5.3

B. D. −11° 5997

1900	h m s	° ′ ″
Oct. 9	23 0 40.11	−10 58 38.8
18	40.01	39.2
Mean	23 0 40.06	−10 58 39.0

B. D. −13° 6344

1900	h m s	° ′ ″
Oct. 6	23 1 44.31	−13 16 4.4
20	44.25	4.1
Mean	23 1 44.28	−13 16 4.2

B. D. −9° 6123

1900	h m s	° ′ ″
Oct. 11	23 2 4.57	− 9 21 17.1
26	4.58	17.5
Mean	23 2 4.58	− 9 21 17.3

B. D. −12° 6426

1900	h m s	° ′ ″
Oct. 15	23 2 10.43	−12 20 49.2
27	10.40	48.6
Mean	23 2 10.42	−12 20 48.9

B. D. −1° 4393

1900	h m s	° ′ ″
Oct. 10	23 2 38.10	− 0 50 13.0
24	38.07	13.5
Mean	23 2 38.08	− 0 50 13.2

B. D. −6° 6147

1900	h m s	° ′ ″
Oct. 16	23 2 39.93	− 6 14 19.1
19	39.88	18.9
Nov. 6	39.98	18.9
Mean	23 2 39.93	− 6 14 19.0

B. D. +1° 4686

1900	h m s	° ′ ″
Oct. 9	23 3 33.58	+ 1 35 0.8
18	33.69	0.8
Mean	23 3 33.64	+ 1 35 0.8

B. D. −3° 5576

1900	h m s	° ′ ″
Oct. 17	23 3 55.15	− 2 59 40.3
29	55.15	40.8
Mean	23 3 55.15	− 2 59 40.6

B. D. −4° 5833

1900	h m s	° ′ ″
Oct. 6	23 4 27.34	− 4 30 15.4
20	27.26	15.4
Mean	23 4 27.30	− 4 30 15.4

B. D. −14° 6413

1900	h m s	° ′ ″
Oct. 10	23 5 5.71	−14 11 15.6
27	5.62	15.3
Nov. 5	5.61	15.6
Mean	23 5 5.65	−14 11 15.5

B. D. −8° 6040

1900	h m s	° ′ ″
Oct. 11	23 5 12.12	− 8 21 1.8
Nov. 6	12.23	2.4
Mean	23 5 12.18	− 8 21 2.1

B. D. −6° 6157

1900	h m s	° ′ ″
Oct. 16	23 5 28.97	− 6 30 10.7
24	28.93	10.5
Mean	23 5 28.95	− 6 30 10.6

B. D. −11° 6020

1900	h m s	° ′ ″
Oct. 9	23 6 16.04	−11 3 5.2
19	15.96	5.7
Mean	23 6 16.00	−11 3 5.4

B. D. −1° 4401

1900	h m s	° ′ ″
Oct. 15	23 6 33.47	− 1 40 40.1
26	33.44	39.7
Mean	23 6 33.46	− 1 40 39.9

B. D. −12° 6444

1900	h m s	° ′ ″
Oct. 17	23 6 45.89	−12 28 34.3
29	45.80	34.8
Mean	23 6 45.84	−12 28 34.6

B. D. 10° 6082

1900	h m s	° ′ ″
Oct. 10	23 7 46.00	−10 6 49.7
27	45.99	50.8
Mean	23 7 46.00	−10 6 50.2

B. D. −0° 4483

1900	h m s	° ′ ″
Oct. 11	23 7 52.75	− 0 30 46.1
20	52.85	47.2
Nov. 5	52.77	46.3
Mean	23 7 52.79	− 0 30 46.5

B. D. −3° 5592

1900	h m s	° ′ ″
Oct. 16	23 8 57.80	− 3 10 44.4

B.D. −11° 6032

1900	h m s	° ′ ″
Oct. 9	23 9 27.51	−11 13 56.4
29	27.49	57.1
Mean	23 9 27.50	−11 13 56.8

B. D. −12° 6453

1900	h m s	° ′ ″
Oct. 15	23 10 8.08	−12 6 35.7
Nov. 6	8.02	35.8
Mean	23 10 8.05	−12 6 35.8

B. D. −5° 5957

1900	h m s	° ′ ″
Oct. 17	23 10 10.53	− 5 4 42.1

B. D. −4° 5852

1900	h m s	° ′ ″
Oct. 18	23 10 25.17	− 4 2 29.4

B. D. +0° 4982

1900	h m s	° ′ ″
Oct. 11	23 10 32.02	+ 0 45 51.3

B. D. −13° 6372

1900	h m s	° ′ ″
Oct. 26	23 10 38.34	−13 43 44.3

B. D. −2° 5914

1900	h m s	° ′ ″
Oct. 27	23 10 49.95	− 1 58 8.9

B. D. −8° 6076

1900	h m s	° ′ ″
Oct. 19	23 11 39.94	− 8 16 18.4

B. D. −12° 6461

1900	h m s	° ′ ″
Oct. 6	23 12 26.94	−12 15 33.3

B. D. −9° 6160

1900	h m s	° ′ ″
Oct. 15	23 12 42.56	− 9 43 43.1

B. D. −0° 4498

1900	h m s	° ′ ″
Oct. 10	23 13 13.05	− 0 1 17.7
20	12.96	18.3
Mean	23 13 13.00	− 0 1 18.0

B. D. −2° 5925

1900	h m s	° ′ ″
Oct. 11	23 13 18.64	− 2 26 33.9
Nov. 5	18.75	33.6
Mean	23 13 18.70	− 2 26 33.8

B. D. −12° 6468

1900	h m s	° ′ ″
Oct. 17	23 13 49.18	−12 43 2.2

B. D. −5° 5966

1900	h m s	° ′ ″
Oct. 19	23 14 12.96	− 5 40 14.6

B. D. −4° 5868

1900	h m s	° ′ ″
Oct. 9	23 15 4.85	− 4 27 49.2
29	4.83	49.2
Mean	23 15 4.84	− 4 27 49.2

B. D. −6° 6191

1900	h m s	° ′ ″
Oct. 15	23 15 31.56	− 6 27 14.6

B. D. −11° 6053

1900	h m s	° ′ ″
Oct. 20	23 15 40.52	−11 4 48.3

B. D. −9° 6173

1900	h m s	° ′ ″
Oct. 24	23 16 0.56	− 9 13 19.8
Nov. 5	0.54	18.6
Mean	23 16 0.55	− 9 13 19.2

B. D. −7° 5993

1900	h m s	° ′ ″
Oct. 10	23 16 4.43	− 7 34 14.4

	B. D. +1° 4714	
1900	h m s	° ′ ″
Oct. 11	23 16 4.80	+ 1 39 1.1
	B. D. −13° 6391	
1900	h m s	° ′ ″
Oct. 6	23 16 38.89	−12 59 49.1
26	38.88	49.1
Mean	23 16 38.88	−12 59 49.1
	B. D. −10° 6098	
1900	h m s	° ′ ″
Oct. 17	23 16 39.41	−10 18 34.0
27	39.43	34.2
Mean	23 16 39.42	−10 18 34.1
	B. D. +2° 4660	
1900	h m s	° ′ ″
Oct. 9	23 17 46.73	+ 2 16 12.6
Nov. 2	46.89	12.1
Mean	23 17 46.81	+ 2 16 12.4
	B. D. −11° 6064	
1900	h m s	° ′ ″
Oct. 16	23 17 50.06	−11 19 12.6
29	50.02	13.5
Mean	23 17 50.04	−11 19 13.0
	B. D. −10° 6105	
1900	h m s	° ′ ″
Oct. 15	23 18 6.09	− 9 56 0.7
Nov. 6	6.14	0.9
Mean	23 18 6.12	− 9 56 0.8
	B. D. −4° 5879	
1900	h m s	° ′ ″
Oct. 19	23 18 14.27	− 3 45 48.6
	B. D. −0° 4509	
1900	h m s	° ′ ″
Oct. 20	23 18 24.14	− 0 15 28.0
	B. D. −1° 4427	
1900	h m s	° ′ ″
Oct. 11	23 18 36.07	− 1 25 52.3
Nov. 5	36.06	52.1
Mean	23 18 36.06	− 1 25 52.2
	B. D. −8° 6103	
1900	h m s	° ′ ″
Oct. 10	23 18 55.02	− 8 5 58.9
24	54.97	59.2
Mean	23 18 55.00	− 8 5 59.0
	B. D. +2° 4663	
1900	h m s	° ′ ″
Oct. 17	23 19 10.39	+ 3 10 2.1
26	10.41	1.3
Mean	23 19 10.40	+ 3 10 1.7
	B. D. −7° 6012	
1900	h m s	° ′ ″
Oct. 10	23 21 24.23	− 7 9 25.5
29	24.17	26.5
Mean	23 21 24.20	− 7 9 26.0
	B. D. −10° 6114	
1900	h m s	° ′ ″
Oct. 6	23 21 25.09	−10 35 2.9
27	25.01	3.4
Mean	23 21 25.05	−10 35 3.2

	B. D. −6° 6213	
1900	h m s	° ′ ″
Oct. 20	23 21 29.55	− 5 46 57.8
	B. D. +1° 4724	
1900	h m s	° ′ ″
Oct. 11	23 21 37.11	+ 1 55 41.0
	B. D. −3° 5639	
1900	h m s	° ′ ″
Oct. 26	23 22 5.26	− 3 11 5.5
	B. D. −12° 6496	
1900	h m s	° ′ ″
Oct. 19	23 22 52.97	−11 59 58.7
	B. D. −8° 6118	
1900	h m s	° ′ ″
Oct. 24	23 23 46.67	− 7 57 10.4
	B. D. −10° 6120	
1900	h m s	° ′ ″
Oct. 10	23 23 50.38	− 9 48 59.1
29	50.36	59.5
Mean	23 23 50.37	− 9 48 59.3
	B. D. −2° 5973	
1900	h m s	° ′ ″
Oct. 9	23 24 19.06	− 2 20 30.2
27	19.04	30.1
Mean	23 24 19.05	− 2 20 30.2
	B. D. −5° 5999	
1900	h m s	° ′ ″
Oct. 6	23 24 21.98	− 5 4 39.7
	B. D. −1° 4443	
1900	h m s	° ′ ″
Oct. 11	23 24 22.60	− 1 35 9.2
	B. D. +0° 5009	
1900	h m s	° ′ ″
Oct. 16	23 25 33.49	+ 0 19 34.5
Nov. 5	33.38	35.1
Mean	23 25 33.44	+ 0 19 34.8
	B. D. −7° 6036	
1900	h m s	° ′ ″
Oct. 15	23 25 51.71	− 6 50 20.4
	B. D. +1° 4731	
1900	h m s	° ′ ″
Oct. 17	23 25 59.35	+ 1 48 47.7
19	59.38	48.0
Mean	23 25 59.36	+ 1 48 47.8
	B. D. −9° 6206	
1900	h m s	° ′ ″
Oct. 20	23 26 36.14	− 8 52 48.9
29	36.20	48.9
Mean	23 26 36.17	− 8 52 48.9
	B. D. −3° 5651	
1900	h m s	° ′ ″
Oct. 10	23 27 0.24	− 3 34 47.7
27	0.17	48.0
Mean	23 27 0.20	− 3 34 47.8
	B. D. −11° 6098	
1900	h m s	° ′ ″
Oct. 9	23 27 15.05	−11 33 3.6

	B. D. −3° 5655	
1900	h m s	° ′ ″
Oct. 26	23 27 47.01	− 3 34 7.0
	B. D. +2° 4680	
1900	h m s	° ′ ″
Oct. 11	23 27 48.08	+ 2 49 47.1
	B. D. −5° 6011	
1900	h m s	° ′ ″
Oct. 16	23 28 19.70	− 4 57 12.6
Nov. 5	19.69	11.7
Mean	23 28 19.70	− 4 57 12.2
	B. D. −3° 5661	
1900	h m s	° ′ ″
Oct. 15	23 28 33.25	− 2 47 47.0
24	33.37	47.4
Mean	23 28 33.31	− 2 47 47.2
	B. D. −2° 5986	
1900	h m s	° ′ ″
Oct. 17	23 29 0.46	− 1 47 59.2
	B. D. +4° 5029	
1900	h m s	° ′ ″
Oct. 19	23 29 18.50	+ 4 55 4.3
29	18.53	4.0
Mean	23 29 18.52	+ 4 55 4.2
	B. D. −11° 6110	
1900	h m s	° ′ ″
Oct. 9	23 30 17.23	−11 6 28.2
27	17.19	28.4
Mean	23 30 17.21	−11 6 28.3
	B. D. +0° 5018	
1900	h m s	° ′ ″
Oct. 11	23 30 21.82	+ 0 45 39.7
	B. D. −8° 6142	
1900	h m s	° ′ ″
Oct. 10	23 30 22.67	− 8 1 4.2
	B. D. −6° 6239	
1900	h m s	° ′ ″
Oct. 26	23 30 38.02	− 6 18 6.7
	B. D. −9° 6220	
1900	h m s	° ′ ″
Oct. 16	23 30 50.67	− 9 19 6.5
Nov. 5	50.63	5.7
Mean	23 30 50.65	− 9 19 6.1
	B. D. +2° 4686	
1900	h m s	° ′ ″
Oct. 20	23 30 59.13	+ 2 35 58.3
	B. D. +1° 4744	
1900	h m s	° ′ ″
Oct. 15	23 31 17.03	+ 1 32 50.3
24	17.14	50.4
Mean	23 31 17.08	+ 1 32 50.4
	B. D. −4° 5917	
1900	h m s	° ′ ″
Oct. 9	23 33 2.24	− 4 18 46.3
19	2.18	46.4
Mean	23 33 2.21	− 4 18 46.4

	1900	h m s	° ′ ″
B. D. −9° 6224	Oct. 10	23 33 2.67	− 9 10 51.0
	26	2.66	51.4
	Mean	23 33 2.66	− 9 10 51.2
B. D. −1° 4469	Oct. 15	23 34 37.09	− 1 17 39.7
B. D. − 6° 6256	Oct. 16	23 34 42.01	− 6 6 2.0
B. D. +4° 5036	Oct. 17	23 35 11.61	+ 4 15 6.1
B. D. −0° 4547	Oct. 27	23 35 33.46	− 0 8 16.1
B. D. −8° 6166	Nov. 5	23 35 39.11	− 8 28 2.6
B. D. +2° 4701	Oct. 24	23 35 44.39	+ 3 4 22.8
B. D. −7° 6070	Oct. 9	23 36 1.36	− 7 1 54.7
B. D. −3° 5688	Oct. 19	23 36 5.49	− 3 24 47.4
B. D. −2° 6021	Oct. 6	23 37 13.79	− 2 3 19.1
	16	13.81	19.8
	29	13.74	19.5
	Mean	23 37 13.78	− 2 3 19.5
B. D. −3° 5697	Oct. 17	23 39 24.47	− 3 43 47.7
	27	24.48	47.5
	Mean	23 39 24.48	− 3 43 47.6
B. D. −5° 6041	Oct. 9	23 39 26.52	− 5 33 44.4
	20	26.51	44.9
	Mean	23 39 26.52	− 5 33 44.6
B. D. −7° 6078	Oct. 11	23 39 38.89	− 7 29 28.3
	26	38.94	29.1
	Nov. 5	38.90	28.1
	Mean	23 39 38.91	− 7 29 28.5
B. D. +6° 5197	Oct. 15	23 39 42.68	+ 6 38 12.8
	24	42.73	12.9
	Mean	23 39 42.70	+ 6 38 12.8
B. D. 1° 4485	Oct. 6	23 39 52.56	− 1 12 57.0
	19	52.43	56.6
	Mean	23 39 52.50	− 1 12 56.8
B. D. +2° 4709	Oct. 16	23 41 16.87	+ 2 55 54.9
B. D. −0° 4566	Oct. 10	23 41 27.50	− 0 1 27.9
	29	27.40	29.5
	Mean	23 41 27.45	− 0 1 28.7
B. D. −5° 6048	Oct. 9	23 42 30.86	− 5 1 3.5
	27	30.80	4.3
	Mean	23 42 30.83	− 5 1 3.9
B. D. +3° 4895	Oct. 6	23 42 38.20	+ 3 40 28.1
	19	38.09	28.1
	Mean	23 42 38.14	+ 3 40 28.1
B. D. −3° 5707	Oct. 17	23 42 48.02	− 3 19 3.6
	24	48.13	3.2
	Mean	23 42 48.08	− 3 19 3.4
B. D. −7° 6086	Oct. 15	23 43 24.11	− 6 56 9.4
	20	24.21	9.0
	Mean	23 43 24.16	− 6 56 9.2
B. D. +1° 4773	Oct. 11	23 43 42.09	+ 1 39 34.6
	26	42.25	34.3
	Mean	23 43 42.17	+ 1 39 34.4
B. D. +0° 5054	Oct. 10	23 44 20.36	+ 0 31 15.7
	16	20.23	14.4
	29	20.23	14.8
	Mean	23 44 20.27	+ 0 31 15.0
B. D. +5° 5224	Oct. 6	23 45 7.61	+ 5 59 5.1
	19	7.49	4.8
	27	7.59	4.9
	Mean	23 45 7.56	+ 5 59 4.9
B. D. −6° 6303	Oct. 9	23 46 37.28	− 6 14 7.9
	17	37.22	8.4
	24	37.29	8.6
	Mean	23 46 37.26	− 6 14 8.3
B. D. +2° 4725	Oct. 16	23 46 50.68	+ 2 22 27.9
	26	50.66	28.9
	Mean	23 46 50.67	+ 2 22 28.4
B. D. −3° 5723	Oct. 15	23 47 47.35	− 3 42 39.7
B. D. +1° 4792	Oct. 11	23 47 57.37	+ 1 32 4.9
	29	57.37	4.2
	Mean	23 47 57.37	+ 1 32 4.6
B. D. −7° 6104	Oct. 6	23 47 59.07	− 7 12 21.0
	19	59.01	21.1
	Mean	23 47 59.04	− 7 12 21.0
B. D. +4° 5066	Oct. 10	23 48 58.27	+ 4 18 56.9
	27	58.19	56.4
	Mean	23 48 58.23	+ 4 18 56.6
B. D. +2° 4728	Oct. 17	23 49 11.95	+ 3 7 22.6
	24	12.08	22.4
	Mean	23 49 12.02	+ 3 7 22.5
B. D. −2° 6059	Oct. 9	23 49 31.26	− 2 30 8.4
B. D. −0° 4585	Oct. 16	23 49 39.50	− 0 26 49.6
	Nov. 5	39.55	49.0
	Mean	23 49 39.52	− 0 26 49.3
B. D. −5° 6081	Oct. 20	23 50 0.07	− 5 13 28.2
B. D. +6° 5216	Oct. 26	23 50 0.73	+ 6 30 52.7
B. D. +7° 5101	Oct. 6	23 50 30.76	+ 7 40 1.4
	11	30.72	1.2
	29	30.76	1.2
	Mean	23 50 30.75	+ 7 40 1.3
B. D. +3° 4909	Oct. 10	23 51 39.98	+ 4 10 6.0
	17	39.85	5.8
	27	39.85	5.6
	Mean	23 51 39.89	+ 4 10 5.8

B. D. +2° 4736

1900	h m s	° ′ ″
Oct. 15	23 51 58.86	+ 2 30 53.0
24	58.91	53.4
Mean	23 51 58.88	+ 2 30 53.2

B. D. −2° 6071

1900	h m s	° ′ ″
Oct. 17	23 54 26.61	− 2 24 27.1
27	26.60	27.5
Mean	23 54 26.60	− 2 24 27.3

B. D. −6° 6335

1900	h m s	° ′ ″
Oct. 16	23 54 32.96	− 6 26 55.1
29	32.82	54.4
Mean	23 54 32.89	− 6 26 54.8

B. D. −1° 4514

1900	h m s	° ′ ″
Oct. 15	23 54 39.20	− 0 50 11.3

B. D. +5° 5245

1900	h m s	° ′ ″
Nov. 5	23 54 46.93	+ 5 24 3.0

B. D. +0° 5080

1900	h m s	° ′ ″
Oct. 26	23 55 27.07	+ 0 30 32.5

B. D. −0° 4603

1900	h m s	° ′ ″
Oct. 20	23 55 31.51	− 0 20 1.9

B. D. −5° 6097

1900	h m s	° ′ ″
Oct. 24	23 55 52.31	− 5 29 5.4

B. D. −3° 5749

1900	h m s	° ′ ″
Oct. 6	23 56 42.00	− 3 35 3.5
19	41.93	2.6
Mean	23 56 41.96	− 3 35 3.0

B. D. +7° 5121

1900	h m s	° ′ ″
Oct. 10	23 57 23.03	+ 7 55 47.9
16	22.98	47.2
Nov. 5	22.96	48.0
Mean	23 57 22.99	+ 7 55 47.7

B. D. +1° 4820

1900	h m s	° ′ ″
Oct. 11	23 57 39.38	+ 1 34 33.5
15	39.39	32.9
Mean	23 57 39.38	+ 1 34 33.2

CATALOGUE

OF

495 ZODIACAL STARS.

NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0	NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0
	1900+		h m s		° ′ ″		1900+		h m s		° ′ ″
B. D. −21° 5522	0.79	1	19 42 6.34	1	−21 12 14.9	B. D. −19° 5831	0.78	2	20 24 10.00	2	−18 54 50.9
C.P.D. −23° 7590	0.78	2	19 44 18.38	2	23 1 52.6	B. D. −15° 5696	0.80	2	20 25 28.23	2	15 23 25.8
C.P.D. −27° 6855	0.79	2	19 45 0.42	2	27 43 30.6	B. D. −17° 6007	0.78	3	20 25 39.76	3	17 28 28.8
B. D. −21° 5556	0.78	2	19 46 59.18	2	21 19 24.0	C.P.D. 25° 7104	0.77	3	20 26 55.20	3	25 16 53.4
B. D. −18° 5520	0.79	2	19 47 37.74	2	18 10 0.6	B. D. −21° 5752	0.78	2	20 27 37.94	2	21 14 13.6
C.P.D. −26° 6880	0.78	2	19 49 42.86	2	26 33 53.6	C.P.D. −23° 7796	0.80	3	20 28 14.41	3	23 35 27.0
C.P.D. −23° 7614	0.79	2	19 50 42.30	2	23 19 48.3	B. D. −14° 5781	0.78	3	20 28 37.72	3	14 3 53.3
B. D. −15° 5516	0.78	2	19 52 16.79	2	15 45 24.8	B. D. −19° 5852	0.79	3	20 28 42.71	3	19 44 21.5
B. D. −18° 5553	0.78	2	19 53 17.28	2	18 13 46.0	B. D. −18° 5714	0.77	3	20 29 42.98	3	18 7 51.1
C.P.D. −24° 6879	0.78	2	19 54 48.98	2	−24 27 34.1	B. D. −17° 6027	0.77	3	20 29 52.80	3	−16 52 9.0
B. D. −17° 5832	0.78	2	19 55 48.92	2	−17 8 33.2	B. D. −21° 5768	0.78	2	20 30 39.30	2	−20 55 51.6
B. D. −22° 5318	0.78	2	19 57 48.82	2	22 52 33.8	B. D. −12° 5778	0.80	3	20 30 45.58	3	12 43 38.2
C.P.D. −27° 6933	0.78	2	19 59 6.04	2	27 5 46.0	B. D. −22° 5484	0.78	3	20 31 52.65	3	22 47 28.3
B. D. −20° 5814	0.76	2	20 0 38.66	2	20 25 40.1	B. D. −11° 5379	0.77	3	20 32 27.81	3	11 22 52.1
B. D. −17° 5860	0.76	2	20 1 20.43	2	17 28 54.7	B. D. −15° 5743	0.75	2	20 33 40.86	2	15 18 19.6
C.P.D. −24° 6906	0.79	3	20 1 41.98	3	24 10 13.1	B. D. −20° 5995	0.76	2	20 33 48.34	2	20 1 23.6
B. D. −19° 5721	0.76	2	20 2 26.40	2	19 5 34.8	C.P.D. −24° 7050	0.80	2	20 34 14.76	2	24 8 21.8
B. D. −15° 5564	0.78	3	20 2 50.72	3	15 19 6.0	B. D. −16° 5663	0.77	2	20 34 55.46	2	16 28 48.0
B. D. −14° 5648	0.79	4	20 2 58.81	4	14 32 39.5	B. D. −14° 5815	0.76	2	20 35 40.42	2	13 51 17.2
B. D. −21° 5629	0.76	2	20 3 42.89	2	−20 53 1.6	B.D. −21° 5802	0.79	2	20 36 18.33	2	−21 37 51.6
C.P.D. −25° 7008	0.76	2	20 4 5.17	2	−25 34 36.8	B. D. −13° 5736	0.79	4	20 37 6.71	4	−13 26 53.2
C.P.D. −24° 6922	0.79	3	20 5 29.95	3	24 31 20.1	B. D. −12° 5808	0.77	2	20 38 5.98	2	12 0 2.8
B. D. −22° 5354	0.79	4	20 5 31.38	4	22 14 49.9	B. D. −19° 5905	0.76	2	20 38 11.76	2	19 42 10.0
B. D. −15° 5576	0.78	4	20 5 39.06	4	15 47 32.0	B. D. −14° 5839	0.80	3	20 38 59.68	3	14 32 47.5
B. D. −13° 5608	0.78	3	20 6 51.60	3	12 54 37.7	B. D. −11° 5408	0.80	3	20 39 9.72	3	10 51 9.8
C.P.D. −26° 6950	0.76	2	20 6 52.81	2	26 29 22.6	B. D. −16° 5690	0.80	3	20 39 38.03	3	16 9 38.8
B. D. −22° 5372	0.79	3	20 8 25.19	3	22 20 25.7	B. D. −22° 5523	0.76	2	20 40 22.26	2	21 52 39.4
B. D. −18° 5626	0.77	2	20 8 43.39	2	18 23 49.2	C.P.D. −24° 7074	0.77	2	20 40 24.49	2	24 5 17.0
B. D. −19° 5753	0.76	2	20 8 56.00	2	19 30 37.0	B. D. −17° 6081	0.80	3	20 40 55.80	3	17 31 34.2
C.P.D. −27° 6972	0.81	2	20 9 3.18	2	27 19 53.5	C.P.D. −23° 7859	0.79	2	20 42 31.69	2	−23 6 13.8
B. D. −17° 5913	0.78	2	20 9 31.70	2	−17 9 14.8	B. D. −17° 6089	0.81	2	20 42 35.68	2	−16 53 15.2
B. D. −13° 5619	0.79	2	20 9 32.64	2	13 41 13.8	B. D. −21° 5840	0.76	2	20 43 28.34	2	20 59 43.6
B. D. −15° 5597	0.79	2	20 9 45.59	2	15 5 13.4	B. D. −18° 5783	0.77	2	20 43 40.24	2	18 24 17.4
C.P.D. −23° 7684	0.82	2	20 10 15.30	2	23 48 56.5	B. D. −11° 5434	0.79	2	20 43 57.07	2	11 49 30.6
B. D. −20° 5870	0.81	2	20 10 27.26	2	20 19 42.6	B. D. −16° 5709	0.80	3	20 45 0.25	3	15 52 58.5
B. D. −21° 5669	0.80	2	20 10 57.13	2	21 14 24.4	B. D. −13° 5773	0.80	3	20 45 11.11	3	12 54 55.7
B. D. −15° 5606	0.72	1	20 11 7.87	1	15 29 18.8	B. D. −14° 5866	0.80	2	20 45 46.63	2	14 17 46.6
B. D. −18° 5637	0.73	1	20 11 15.39	1	18 44 21.4	B. D. −10° 5526	0.79	2	20 46 21.52	2	10 41 30.8
B. D. −21° 5684	0.79	2	20 13 35.71	2	21 15 48.0	B. D. −20° 6055	0.77	2	20 46 33.04	2	20 1 6.2
B. D. −19° 5776	0.81	2	20 13 37.44	2	−19 25 50.4	B. D. −21° 5852	0.78	2	20 46 35.56	2	−21 36 23.3
C.P.D. −25° 7042	0.80	2	20 13 46.27	2	−25 32 15.2	B. D. −13° 5779	0.77	2	20 46 59.92	2	−13 34 43.4
B. D. −17° 5936	0.80	2	20 14 0.59	2	17 48 3.2	B. D. −17° 6112	0.79	2	20 47 18.28	2	17 22 54.0
B. D. −13° 5642	0.77	2	20 15 7.06	2	13 4 26.0	B. D. −12° 5854	0.78	2	20 47 37.45	2	11 57 6.8
B. D. −15° 5626	0.78	2	20 15 9.49	2	15 6 0.7	B. D. −19° 5950	0.81	2	20 47 50.34	2	19 29 29.4
C.P.D. −23° 7723	0.79	2	20 15 34.54	2	23 47 36.1	C.P.D. −24° 7109	0.82	2	20 48 8.86	2	24 39 29.2
B. D. −16° 5581	0.80	3	20 16 53.09	3	16 50 22.4	B. D. −18° 5805	0.77	2	20 49 8.85	2	18 18 7.8
B. D. −22° 5419	0.78	3	20 18 29.37	3	22 22 16.6	C.P.D. −23° 7879	0.76	2	20 49 15.34	2	23 13 54.0
B. D. −13° 5661	0.77	3	20 18 32.86	3	13 43 6.5	B. D. −15° 5833	0.80	2	20 49 21.70	2	15 39 45.7
C.P.D. −26° 6996	0.79	4	20 18 36.44	4	26 9 21.0	B. D. −13° 5791	0.79	2	20 50 9.62	2	13 14 55.8
B. D. −19° 5809	0.78	4	20 19 18.13	4	−19 45 27.2	B. D. −22° 5572	0.81	4	20 51 5.75	4	−22 23 20.0
C.P.D. −25° 7071	0.81	4	20 20 16.92	4	25 16 20.7	B. D. −10° 5553	0.78	2	20 51 29.72	2	−10 4 51.8
B. D. −17° 5975	0.78	2	20 20 50.02	2	17 42 13.8	B. D. −16° 5741	0.81	2	20 52 4.82	2	16 24 58.6
B. D. −21° 5719	0.76	2	20 21 2.20	2	21 8 8.8	B. D. −12° 5876	0.76	2	20 52 33.87	2	12 20 24.6
B. D. −14° 5753	0.80	2	20 22 28.46	2	14 19 37.6	B. D. −15° 5848	0.80	3	20 53 9.66	3	14 52 9.2
C.P.D. −24° 6997	0.76	2	20 22 48.68	2	24 18 46.6	B. D. −20° 6090	0.76	2	20 53 40.66	2	20 49 55.0
B. D. −16° 5609	0.81	2	20 23 5.56	2	16 4 20.7	B. D. −11° 5484	0.81	3	20 53 48.48	3	11 6 4.0
B. D. −21° 5729	0.77	2	20 23 11.52	2	21 13 59.1	B. D. −19° 5982	0.79	3	20 53 55.22	3	19 25 22.2
B. D. −22° 5442	0.82	2	20 23 39.33	2	22 43 22.8	B. D. −18° 5831	0.77	2	20 55 14.12	2	17 55 15.4
B. D. −13° 5680	0.76	2	20 23 58.30	2	12 55 25.8	C.P.D. −23° 7896	0.80	2	20 55 36.72	2	23 28 10.1
B. D. −19° 5830	0.79	2	20 24 8.65	2	−18 55 2.1	B. D. −14° 5908	0.80	3	20 55 37.73	3	−13 55 16.1

NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0
	1900+		h m s		° ′ ″
B. D. −21° 5901	0.79	2	20 56 22.78	2	−21 43 28.5
B. D. −12° 5890	0.80	3	20 56 32.66	3	12 5 16.5
B. D. −16° 5769	0.78	3	20 57 0.58	3	15 51 56.7
B. D. −10° 5578	0.78	3	20 57 10.90	3	10 23 22.7
B. D. −20° 6115	0.82	3	20 58 42.89	3	20 15 1.8
B. D. −11° 5524	0.77	2	21 0 26.34	2	11 0 39.4
B. D. −14° 5936	0.81	3	21 1 37.12	3	14 19 22.5
B. D. −19° 6024	0.79	2	21 1 49.94	2	19 29 17.8
B. D. −22° 5612	0.80	2	21 2 10.16	2	22 44 13.2
B. D. −13° 5857	0.78	3	21 2 46.60	3	−13 17 1.0
B. D. −21° 5933	0.78 0.82	3	21 2 50.03	2	−21 35 43.8
B. D. −21° 5940	0.78	2	21 3 49.99	2	20 57 29.6
B. D. −16° 5810	0.79	2	21 4 34.93	2	16 6 27.8
B. D. −17° 6196	0.79	2	21 4 46.86	2	17 21 50.8
C.P.D. −23° 7931	0.80	2	21 4 52.91	2	23 42 56.8
B. D. −18° 5875	0.76	2	21 4 54.45	2	18 44 14.9
B. D. −10° 5619	0.76	2	21 5 20.16	2	10 36 59.4
B. D. − 9° 5674	0.81	2	21 5 23.40	2	9 45 35.3
B. D. −15° 5908	0.79	3	21 6 9.93	3	14 52 52.1
B. D. −20° 6159	0.79	2	21 8 16.78	2	−20 30 2.0
B. D. −22° 5630	0.80	2	21 8 17.12	2	−22 37 26.3
B. D. −13° 5881	0.76	2	21 8 39.80	2	12 52 45.2
B. D. −11° 5553	0.78	2	21 8 52.16	2	11 1 7.2
B. D. −17° 6216	0.77	2	21 9 31.02	2	17 45 31.8
B. D. −21° 5974	0.81	2	21 9 56.40	2	21 4 1.3
B. D. −16° 5827	0.79	2	21 10 1.52	2	16 30 21.8
B. D. −15° 5935	0.82	2	21 10 12.84	2	15 35 13.4
B. D. −13° 5891	0.78	2	21 10 31.03	2	13 37 0.4
B. D. − 9° 5700	0.79	2	21 10 55.78	2	9 37 52.1
B. D. −18° 5903	0.76	2	21 12 20.86	2	−18 24 14.7
B. D. −19° 6065	0.80	2	21 12 34.11	2	−19 6 21.8
B. D. −20° 6178	0.82	3	21 12 45.99	3	20 45 16.8
B. D. −13° 5901	0.79	3	21 13 5.84	3	13 0 54.7
B. D. −16° 5840	0.77	3	21 13 41.75	3	16 35 58.2
B. D. −14° 5997	0.79	2	21 14 19.02	2	14 26 21.4
B. D. −11° 5578	0.76	2	21 15 23.82	2	11 46 24.0
B. D. −20° 6192	0.80	2	21 15 44.76	2	19 57 7.8
B. D. −15° 5958	0.81	3	21 15 58.50	3	15 34 47.4
B. D. − 9° 5724	0.84	1	21 16 36.69	1	9 45 8.0
B. D. − 8° 5634	0.80	3	21 16 36.90	3	− 7 56 45.6
B. D. − 9° 5728	0.72	1	21 17 34.65	1	− 9 44 44.2
B. D. −21° 6007	0.81	3	21 18 29.40	3	21 16 36.7
B. D. −13° 5923	0.79	3	21 18 43.70	3	13 18 25.4
B. D. −17° 6262	0.76	2	21 19 38.04	2	16 49 56.8
B. D. −10° 5668	0.78	2	21 19 50.66	2	10 10 28.1
B. D. −14° 6020	0.80	2	21 19 55.57	2	14 42 28.9
B. D. −18° 5935	0.78	2	21 20 41.26	2	18 34 52.2
B. D. −15° 5983	0.80	2	21 20 56.59	2	15 40 40.2
B. D. −11° 5598	0.80	2	21 21 2.52	2	11 20 57.7
B. D. −19° 6098	0.79	2	21 21 26.27	2	−19 29 25.8
B. D. −21° 6020	0.78	2	21 21 34.74	2	−21 37 44.2
B. D. −20° 6211	0.81	2	21 21 50.80	2	20 38 39.4
B. D. − 7° 5565	0.82	2	21 22 5.20	2	7 26 50.6
B. D. −12° 5998	0.74	1	21 22 13.40	1	12 5 57.0
B. D. −22° 5692	0.77	2	21 23 1.38	2	22 14 33.6
B. D. −13° 5941	0.79	2	21 23 56.70	2	13 12 29.6
B. D. −14° 6039	0.80	3	21 24 11.68	3	14 27 44.4
B. D. −19° 6107	0.77	2	21 24 22.89	2	19 35 4.0
B. D. − 9° 5758	0.82	3	21 24 38.01	3	9 2 22.4
B. D. −17° 6302	0.77	2	21 25 41.80	2	−17 41 56.0
B. D. −10° 5696	0.82	3	21 26 13.41	3	−10 10 53.4
B. D. −12° 6026	0.78	2	21 26 56.44	2	12 42 30.3
B. D. −15° 6005	0.80	2	21 27 11.54	2	14 54 33.1
B. D. −16° 5885	0.81	3	21 28 8.80	3	16 38 27.8
B. D. −20° 6237	0.78	2	21 29 14.16	2	20 31 49.0
B. D. − 9° 5770	0.82	3	21 29 22.63	3	9 31 52.6
B. D. −19° 6131	0.76	2	21 30 48.15	2	18 50 21.3
B. D. −14° 6080	0.82	2	21 31 16.75	2	13 54 21.8
B. D. −20° 6251	0.77	2	21 31 28.98	2	19 54 51.3
B. D. −10° 5714	0.82	3	21 31 32.88	3	−10 37 20.3
B. D. −12° 6044	0.77	2	21 31 56.29	2	−11 54 32.9
B. D. 15° 6027	0.80	3	21 32 45.10	3	15 21 37.6
B. D. −22° 5735	0.76	2	21 33 29.54	2	22 9 53.0
B. D. −11° 5640	0.82	3	21 34 5.65	3	11 1 38.2
B. D. −13° 5985	0.82	2	21 34 13.12	2	13 4 29.9
B. D. − 9° 5809	0.82	3	21 35 37.39	3	9 35 44.5
B. D. −14° 6102	0.79	2	21 36 6.68	2	14 29 37.0
B. D. −12° 6065	0.81	2	21 36 36.00	2	12 42 18.0
B. D. −19° 6152	0.78	2	21 37 4.53	2	19 19 19.1
B. D. −21° 6076	0.77	2	21 37 23.26	2	−20 52 5.2
B. D. −15° 6046	0.77	2	21 37 37.06	2	14 51 25.0
B. D. −20° 6270	0.82	2	21 37 37.94	2	20 4 39.4
B. D. −18° 5998	0.80	2	21 38 0.80	2	17 50 37.8
B. D. − 8° 5719	0.82	2	21 38 7.24	2	7 51 55.9
B. D. −15° 6052	0.79	2	21 38 33.46	2	15 12 27.0
B. D. −10° 5755	0.77	2	21 39 31.14	2	10 40 20.2
B. D. 9° 5829	0.82	2	21 39 40.36	2	9 32 30.4
B. D. − 9° 5833	0.78	2	21 40 56.22	2	9 44 14.7
B. D. −12° 6087	0.77	2	21 41 9.19	2	11 49 38.1
B. D. −18° 6013	0.79	3	21 42 12.50	3	−18 40 34.0
B. D. − 6° 5827	0.81	2	21 42 22.39	2	− 6 22 48.8
B. D. −14° 6128	0.81	2	21 43 6.72	2	14 37 44.6
B. D. −15° 6075	0.77	2	21 43 45.04	2	15 35 8.5
B. D. −13° 6027	0.77	2	21 44 16.88	2	13 11 20.8
B. D. −17° 6389	0.77	2	21 44 43.06	2	17 18 39.8
B. D. −12° 6104	0.80	2	21 44 49.14	2	11 48 33.3
B. D. −21° 6102	0.80	2	21 45 15.70	2	21 0 28.4
B. D. − 9° 5854	0.82	3	21 45 15.84	3	9 26 54.0
B. D. − 8° 5753	0.78	2	21 45 45.16	2	8 22 31.6
B. D. −19° 6176	0.82	2	21 46 8.69	2	−19 5 20.6
B. D. −16° 5961	0.77	2	21 47 5.61	2	−16 43 40.8
B. D. −17° 6397	0.81	2	21 47 11.74	2	17 32 9.2
B. D. −14° 6150	0.80	2	21 47 55.92	2	14 39 36.2
B. D. −10° 5785	0.81	2	21 48 15.24	2	10 46 56.9
B. D. −12° 6126	0.79	4	21 49 38.97	4	12 26 34.2
B. D. − 7° 5669	0.81	2	21 50 57.50	2	7 27 15.4
B. D. −10° 5795	0.77	2	21 51 5.30	2	10 3 37.6
B. D. −18° 6037	0.78	2	21 51 15.67	2	18 22 19.0
B. D. −19° 6190	0.80 0.79	2	21 51 32.72	1	19 39 54.8
B. D. −15° 6103	0.81	2	21 52 20.96	2	−15 35 55.6
B. D. − 9° 5876	0.80	1	21 52 21.17	1	− 9 2 25.6
B. D. −12° 6134	0.80	2	21 52 55.05	2	12 34 42.6
B. D. − 6° 5878	0.78	2	21 52 58.79	2	5 53 56.6
B. D. −11° 5726	0.76	2	21 54 25.13	2	10 47 25.0
B. D. −13° 6074	0.81	2	21 55 41.82	2	13 30 16.2
B. D. −12° 6150	0.79	2	21 55 50.78	2	11 49 24.2
B. D. −15° 6119	0.82	2	21 56 2.10	2	14 48 22.4
B. D. −16° 5998	0.79	2	21 56 6.16	2	16 5 33.6
B. D. −10° 5812	0.78	2	21 56 30.98	2	10 21 22.3
B. D. −18° 6056	0.78	2	21 56 41.68	2	−18 23 0.8
B. D. − 7° 5688	0.80	1	21 58 0.92	1	− 7 0 20.5
B. D. − 8° 5789	0.80	2	21 58 15.80	2	7 56 33.8
B. D. −13° 6095	0.81	2	21 58 43.08	2	13 30 12.4
B. D. −16° 6012	0.78	2	21 58 45.46	2	16 38 47.5
B. D. − 9° 5908	0.80	3	21 59 13.71	3	9 12 0.2
B. D. − 5° 5697	0.78	3	21 59 21.76	3	5 19 29.0
B. D. −15° 6139	0.77	2	22 0 46.78	2	15 22 57.1
B. D. −20° 6362	0.79	2	22 1 54.91	2	20 3 25.0
B. D. −11° 5756	0.80	2	22 1 58.56	2	10 56 5.4
B. D. − 6° 5912	0.77	2	22 2 27.26	2	− 6 19 1.7
B. D. −18° 6075	0.81	2	22 2 45.92	2	−18 19 18.4
B. D. −17° 6451	0.78	2	22 2 59.38	2	17 1 56.8
B. D. −12° 6195	0.80	1	22 3 13.24	1	12 6 7.5
B. D. −19° 6227	0.79	2	22 3 30.02	2	19 0 32.8
B. D. − 9° 5927	0.79	2	22 4 13.04	2	9 17 26.4
B. D. − 8° 5818	0.82	2	22 4 13.26	2	8 1 36.2
B. D. −15° 6152	0.76	1	22 4 24.26	1	15 36 45.5
B. D. −11° 5770	0.77	2	22 5 11.77	2	11 18 46.2
B. D. −12° 6196	0.80	2	22 5 16.78	2	12 3 25.0
B. D. − 4° 5625	0.77	2	22 5 20.98	2	− 4 45 31.0

NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0
	1900+		h m s		° ′ ″
B. D. −14° 6229	0.82	2	22 7 2.25	2	−14 41 10.2
B. D. −18° 6084	0.79	2	22 7 5.54	2	18 31 15.0
B. D. −11° 5778	0.81	2	22 7 19.52	2	10 53 12.1
B. D. − 7° 5727	0.72	1	22 7 27.43	1	6 57 49.6
B. D. − 5° 5732	0.82	2	22 7 31.33	2	5 12 50.0
B. D. −13° 6130	0.76	2	22 7 39.05	2	13 31 7.4
B. D. −19° 6249	0.81	2	22 8 51.51	2	19 44 36.1
B. D. −16° 6046	0.80	2	22 9 13.40	2	16 18 17.2
B. D. −17° 6478	0.80	2	22 10 50.29	2	17 42 11.2
B. D. −12° 6227	0.77	2	22 11 25.20	2	−12 8 48.4
B. D. −13° 6148	0.81	2	22 11 26.82	2	−13 19 48.5
B. D. −15° 6180	0.81	2	22 11 33.10	2	15 9 18.2
B. D. − 9° 5948	0.72	1	22 11 35.86	1	9 32 19.1
B. D. − 6° 5960	0.81	2	22 11 53.26	2	5 53 12.0
B. D. −18° 6096	0.79	2	22 12 5.54	2	18 39 41.0
B. D. −10° 5879	0.82	2	22 12 31.84	2	10 14 26.6
B. D. −14° 6255	0.74	1	22 13 38.85	1	13 48 20.3
B. D. −17° 6491	0.76	2	22 14 9.06	2	17 12 11.9
B. D. − 4° 5655	0.79	3	22 14 37.52	3	4 34 3.0
B. D. −12° 6243	0.82	2	22 14 55.88	2	−12 43 24.6
B. D. − 8° 5855	0.80	2	22 14 56.24	2	− 8 19 24.0
B. D. − 9° 5963	0.79	2	22 15 34.76	2	9 16 3.4
B. D. − 6° 5972	0.79	3	22 16 9.80	3	6 44 47.2
B. D. −11° 5817	0.76	2	22 16 53.37	2	11 21 6.6
B. D. − 4° 5663	0.81	2	22 17 26.26	2	4 14 28.3
B. D. −15° 6208	0.79	3	22 17 58.15	3	15 27 5.8
B. D. − 7° 5765	0.79	2	22 18 17.49	2	7 42 0.9
B. D. −10° 5904	0.81	2	22 18 50.25	2	10 42 12.4
B. D. −14° 6276	0.77	2	22 19 5.77	2	14 2 10.4
B. D. −18° 6114	0.79	3	22 19 8.47	3	−18 5 57.9
B. D. − 5° 5790	0.81	3	22 20 54.12	3	− 5 41 9.6
B. D. − 3° 5443	0.77	2	22 21 4.39	2	3 17 42.4
B. D. −11° 5813	0.81	3	22 21 23.02	3	11 44 11.9
B. D. −12° 6271	0.77	2	22 21 30.48	2	11 51 29.7
B. D. − 9° 5978	0.79	3	22 21 31.32	3	9 1 10.5
B. D. − 6° 5996	0.79	4	22 22 38.39	4	6 24 56.1
B. D. −16° 6092	0.79	2	22 23 30.36	2	16 39 45.8
B. D. −10° 5929	0.77	2	22 24 1.83	2	10 10 26.6
B. D. − 4° 5683	0.79	2	22 24 12.21	2	4 41 58.4
B. D. −13° 6204	0.81	2	22 24 40.76	2	−13 25 37.5
B. D. −15° 6231	0.82	2	22 24 55.84	2	−15 5 49.4
B. D. − 5° 5806	0.81	2	22 25 15.23	2	5 19 50.0
B. D. − 8° 5888^1	0.82	2	22 25 17.11	2	8 37 29.4
B. D. − 8° 5888^2	0.72	1	22 25 17.49	1	8 37 37.2
B. D. − 7° 5797	0.76	2	22 26 3.76	2	7 3 55.9
B. D. − 3° 5460	0.78	1	22 26 8.26	1	3 25 24.6
B. D. −10° 5947	0.80	3	22 28 50.60	3	10 7 27.4
B. D. −15° 6243	0.80	3	22 29 5.74	3	15 38 3.5
B. D. − 3° 5472	0.81	2	22 30 10.70	2	2 46 25.5
B. D. −17° 6554	0.81	2	22 30 44.38	2	−16 54 18.4
B. D. −12° 6315	0.77	2	22 31 48.03	2	−12 14 56.2
B. D. − 6° 6034	0.72	1	22 32 5.36	1	6 35 7.5
B. D. −14° 6317	0.78	2	22 32 34.42	2	13 53 22.4
B. D. − 8° 5912	0.82	2	22 33 7.40	2	8 25 1.8
B. D. −14° 6320	0.80	1	22 33 14.67	1	14 35 13.3
B. D. 10° 5963	0.79	1	22 34 0.36	1	10 32 53.6
B. D. −12° 6327	0.80	3	22 36 7.93	3	12 45 6.9
B. D. − 5° 5843	0.77	2	22 36 53.89	2	5 37 24.8
B. D. − 9° 6037	0.78	2	22 37 44.99	2	9 40 37.0
B. D. − 3° 5491	0.81	3	22 37 47.83	3	− 3 12 22.4
B. D. − 7° 5838	0.78	2	22 38 0.94	2	− 7 29 11.6
B. D. −16° 6142	0.78	1	22 38 11.16	1	16 39 39.5
B. D. −15° 6265	0.78	2	22 39 2.10	2	15 12 2.4
B. D. −13° 6262	0.77	2	22 40 9.05	2	13 31 53.8
B. D. −12° 6342	0.78	2	22 40 50.78	2	12 3 53.2
B. D. −11° 5912	0.81	3	22 40 58.11	3	11 41 30.1
B. D. − 3° 5505	0.80	2	22 42 2.46	2	3 14 8.2
B. D. − 7° 5858	0.77	2	22 42 9.34	2	7 15 27.6
B. D. − 2° 5826	0.77	2	22 42 20.90	2	2 18 57.2
B. D. −14° 6346	0.72	1	22 42 24.27	1	14 35 0.8
B. D. − 6° 6074	0.82	2	22 43 5.95	2	− 6 17 43.2
B. D. − 8° 5952	0.80	1	22 43 8.96	1	8 38 25.3
B. D. 11° 5923	0.78	1	22 43 14.56	1	11 5 1.8
B. D. − 5° 5866	0.80	3	22 43 19.66	3	5 6 12.5
B. D. −13° 6283	0.77	2	22 45 16.94	2	13 13 13.0
B. D. − 1° 4351	0.77	2	22 45 34.48	2	1 6 27.8
B. D. −10° 6002	0.81	2	22 45 58.02	2	9 51 16.9
B. D. −10° 6008	0.76	2	22 47 30.18	2	10 35 24.8
B. D. − 3° 5521	0.80	2	22 47 30.54	2	3 9 26.2
B. D. −12° 6371	0.80	2	22 48 12.91	2	−12 8 53.9
B. D. − 6° 6087	0.79	2	22 48 16.28	2	− 6 31 7.0
B. D. −12° 6374	0.80	2	22 48 50.74	2	12 43 16.8
B. D. − 1° 4355	0.78	2	22 49 9.68	2	1 34 49.1
B. D. − 7° 5886	0.77	2	22 49 21.73	2	7 44 11.0
B. D. −14° 6370	0.78	2	22 50 53.16	2	14 5 18.4
B. D. −15° 6305	0.77	2	22 51 12.56	2	15 31 23.9
B. D. 11° 5953	0.80	3	22 51 34.81	3	10 47 48.0
B. D. − 4° 5793	0.81	2	22 51 57.02	2	3 46 47.6
B. D. − 5° 5894	0.77	2	22 52 6.66	2	5 20 40.4
B. D. −11° 5961	0.78	2	22 52 52.20	2	−11 39 59.8
B. D. − 6° 6110	0.81	2	22 52 57.85	2	− 6 13 15.2
B. D. − 3° 5539	0.80	2	22 53 6.51	2	2 55 48.7
B. D. − 8° 5991	0.79	3	22 53 46.88	3	8 44 56.6
B. D. −13° 6318	0.76	2	22 54 19.74	2	13 36 24.0
B. D. − 9° 6100	0.77	2	22 55 6.62	2	9 24 58.0
B. D. − 0° 4443	0.79	2	22 55 30.20	2	0 21 4.2
B. D. −10° 6038	0.80	2	22 55 54.54	2	10 5 18.5
B. D. −15° 6325	0.76	2	22 56 8.12	2	14 48 26.6
B. D. − 5° 5910	0.80	3	22 56 21.23	3	5 14 56.3
B. D. − 3° 5553	0.80	2	22 56 46.24	2	− 3 13 23.7
B. D. −12° 6404	0.76	2	22 57 17.92	2	11 48 12.0
B. D. − 7° 5913	0.76	2	22 57 21.08	2	7 6 39.8
B. D. − 1° 4382	0.79	2	22 58 1.00	2	0 57 47.4
B. D. − 5° 5917	0.77	2	22 58 44.77	2	5 20 5.2
B. D. − 2° 5876	0.79	3	22 59 9.58	3	2 26 21.6
B. D. −12° 6413	0.79	2	22 59 15.53	2	12 43 4.4
B. D. − 8° 6018	0.78	3	22 59 56.97	3	− 8 14 0.7
B. D. + 0° 4963	0.80	2	23 0 10.64	2	0 46 5.3
B. D. − 11° 5997	0.79	2	23 0 40.06	2	−10 58 39.0
B. D. −13° 6344	0.78	2	23 1 44.28	2	−13 16 4.2
B. D. − 9° 6123	0.80	2	23 2 4.58	2	− 9 21 17.3
B. D. −12° 6426	0.81	2	23 2 10.42	2	12 20 48.9
B. D. − 1° 4393	0.80	2	23 2 38.08	2	0 50 13.2
B. D. − 6° 6147	0.81	3	23 2 39.93	3	− 6 14 19.0
B. D. + 1° 4686	0.79	2	23 3 33.64	2	+ 1 35 0.8
B. D. − 3° 5576	0.81	2	23 3 55.15	2	− 2 59 40.6
B. D. − 4° 5833	0.78	2	23 4 27.30	2	4 30 15.4
B. D. −14° 6413	0.82	3	23 5 5.65	3	14 11 15.5
B. D. − 8° 6040	0.81	2	23 5 12.18	2	8 21 2.1
B. D. − 6° 6157	0.80	2	23 5 28.95	2	− 6 30 10.6
B. D. −11° 6020	0.79	2	23 6 16.00	2	−11 3 5.4
B. D. − 1° 4401	0.80	2	23 6 33.46	2	1 40 39.9
B. D. −12° 6444	0.81	2	23 6 45.84	2	12 28 34.6
B. D. −10° 6082	0.80	2	23 7 46.00	2	10 6 50.2
B. D. − 0° 4483	0.81	3	23 7 52.79	3	0 30 46.5
B. D. − 3° 5592	0.79	1	23 8 57.80	1	3 10 44.4
B. D. −11° 6032	0.80	2	23 9 27.50	2	11 13 56.8
B. D. −12° 6453	0.82	2	23 10 8.05	2	12 6 35.8
B. D. − 5° 5957	0.80	1	23 10 10.53	1	5 4 42.1
B. D. − 4° 5852	0.80	1	23 10 25.17	1	− 4 2 29.4
B. D. 0° 4982	0.78	1	23 10 32.02	1	+ 0 45 51.3
B. D. − 13° 6372	0.82	1	23 10 38.34	1	−13 43 44.3
B. D. − 2° 5914	0.82	1	23 10 49.95	1	1 58 8.9
B. D. − 8° 6076	0.80	1	23 11 39.94	1	8 16 18.4
B. D. 12° 6461	0.76	1	23 12 26.94	1	12 15 33.3
B. D. − 9° 6160	0.79	1	23 12 42.56	1	9 43 43.1
B. D. 0° 4498	0.79	2	23 13 13.00	2	0 1 18.0
B. D. 2° 5925	0.81	2	23 13 18.70	2	2 26 33.8
B. D. 12° 6468	0.80	1	23 13 49.18	1	12 43 2.2
B. D. − 5° 5966	0.80	1	23 14 12.96	1	− 5 40 14.6

NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0	NAME.	MEAN DATE.	NO. OBS.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0
	1900+		h m s		° ′ ″		1900+		h m s		° ′ ″
B. D. − 4° 5868	0.80	2	23 15 4.84	2	− 4 27 49.2	B. D. − 1° 4469	0.79	1	23 34 37.09	1	− 1 17 39.7
B. D. − 6° 6191	0.79	1	23 15 31.56	1	6 27 14.6	B. D. − 6° 6256	0.79	1	23 34 42.01	1	− 6 6 2.0
B. D. −11° 6053	0.80	1	23 15 40.52	1	11 4 48.3	B. D. + 4° 5036	0.80	1	23 35 11.61	1	+ 4 15 6.1
B. D. − 9° 6173	0.83	2	23 16 0.55	2	9 13 19.2	B. D. − 0° 4547	0.82	1	23 35 33.46	1	− 0 8 16.1
B. D. − 7° 5993	0.78	1	23 16 4.43	1	− 7 34 14.4	B. D. − 8° 6166	0.85	1	23 35 39.11	1	− 8 28 2.6
B. D. + 1° 4714	0.78	1	23 16 4.80	1	+ 1 39 1.1	B. D. + 2° 4701	0.81	1	23 35 44.39	1	+ 3 4 22.8
B. D. −13° 6391	0.79	2	23 16 38.88	2	−12 59 49.1	B. D. − 7° 6070	0.77	1	23 36 1.36	1	− 7 1 54.7
B. D. −10° 6098	0.81	2	23 16 39.42	2	−10 18 34.1	B. D. − 3° 5688	0.80	1	23 36 5.49	1	3 24 47.4
B. D. + 2° 4660	0.81	2	23 17 46.81	2	+ 2 16 12.4	B. D. − 2° 6021	0.80	3	23 37 13.78	3	2 3 19.5
B. D. −11° 6064	0.81	2	23 17 50.04	2	−11 19 13.0	B. D. − 3° 5697	0.81	2	23 39 24.48	2	− 3 43 47.6
B. D. −10° 6105	0.82	2	23 18 6.12	2	− 9 56 0.8	B. D. − 5° 6041	0.79	2	23 39 26.52	2	− 5 33 44.6
B. D. − 4° 5879	0.80	1	23 18 14.27	1	3 45 48.6	B. D. − 7° 6078	0.82	3	23 39 38.91	3	− 7 29 28.5
B. D. − 0° 4509	0.80	1	23 18 24.14	1	0 15 28.0	B. D. + 6° 5197	0.80	2	23 39 42.70	2	+ 6 38 12.8
B. D. − 1° 4427	0.81	2	23 18 36.06	2	1 25 52.2	B. D. − 1° 4485	0.78	2	23 39 52.50	2	− 1 12 56.8
B. D. − 8° 6103	0.80	2	23 18 55.00	2	− 8 5 59.0	B. D. + 2° 4709	0.79	1	23 41 16.87	1	+ 2 55 54.9
B. D. + 2° 4663	0.81	2	23 19 10.40	2	+ 3 10 1.7	B. D. − 0° 4566	0.80	2	23 41 27.45	2	− 0 1 28.7
B. D. − 7° 6012	0.80	2	23 21 24.20	2	− 7 9 26.0	B. D. − 5° 6048	0.80	2	23 42 30.83	2	− 5 1 3.9
B. D. −10° 6114	0.79	2	23 21 25.05	2	10 35 3.2	B. D. + 3° 4895	0.78	2	23 42 38.14	2	+ 3 40 28.1
B. D. − 6° 6213	0.80	1	23 21 29.55	1	− 5 46 57.8	B. D. − 3° 5707	0.80	2	23 42 48.08	2	− 3 19 3.4
B. D. + 1° 4724	0.78	1	23 21 37.11	1	+ 1 55 41.0	B. D. − 7° 6086	0.80	2	23 43 24.16	2	− 6 56 9 2
B. D. − 3° 5639	0.82	1	23 22 5.26	1	− 3 11 5.5	B. D. + 1° 4773	0.80	2	23 43 42.17	2	+ 1 39 34.4
B. D. −12° 6496	0.80	1	23 22 52.97	1	11 59 58.7	B. D. + 0° 5054	0.80	3	23 44 20.27	3	0 31 15.0
B. D. − 8° 6118	0.81	1	23 23 46.67	1	7 57 10.4	B. D. + 5° 5224	0.80	3	23 45 7.56	3	+ 5 59 4.9
B. D. −10° 6120	0.80	2	23 23 50.37	2	9 48 59.3	B. D. − 6° 6303	0.79	3	23 46 37.26	3	− 6 14 8.3
B. D. − 2° 5973	0.80	2	23 24 19.05	2	2 20 30.2	B. D. + 2° 4725	0.81	2	23 46 50.67	2	+ 2 22 28.4
B. D. − 5° 5999	0.76	1	23 24 21.98	1	5 4 39.7	B. D. − 3° 5723	0.79	1	23 47 47.35	1	− 3 42 39.7
B. D. − 1° 4443	0.78	1	23 24 22.60	1	− 1 35 9.2	B. D. + 1° 4792	0.80	2	23 47 57.37	2	+ 1 32 4.6
B. D. + 0° 5009	0.82	2	23 25 33.44	2	+ 0 19 34.8	B. D. − 7° 6104	0.78	2	23 47 59.04	2	− 7 12 21.0
B. D. − 7° 6036	0.79	1	23 25 51.71	1	− 6 50 20.4	B. D. + 4° 5066	0.80	2	23 48 58.23	2	+ 4 18 56.6
B. D. + 1° 4731	0.80	2	23 25 59.36	2	+ 1 48 47.8	B. D. + 2° 4728	0.80	2	23 49 12.02	2	+ 3 7 22.5
B. D. − 9° 6206	0.82	2	23 26 36.17	2	− 8 52 48.9	B. D. − 2° 6059	0.77	1	23 49 31.26	1	− 2 30 8.4
B. D. − 3° 5651	0.80	2	23 27 0.20	2	3 34 47.8	B. D. − 0° 4585	0.82	2	23 49 39.52	2	0 26 49.3
B. D. −11° 6098	0.77	1	23 27 15.05	1	11 33 3.6	B. D. − 5° 6081	0.80	1	23 50 0.07	1	− 5 13 28.2
B. D. − 3° 5655	0.82	1	23 27 47.01	1	− 3 34 7.0	B. D. + 6° 5216	0.82	1	23 50 0.73	1	+ 6 30 52.7
B. D. + 2° 4680	0.78	1	23 27 48.08	1	+ 2 49 47.1	B. D. + 7° 5101	0.79	3	23 50 30.75	3	7 40 1 3
B. D. − 5° 6011	0.82	2	23 28 19.70	2	− 4 57 12.2	B. D. + 3° 4909	0.80	3	23 51 39.89	3	4 10 5.8
B. D. − 3° 5661	0.80	2	23 28 33.31	2	2 47 47.2	B. D. + 2° 4736	0.80	2	23 51 58.88	2	+ 2 30 53.2
B. D. − 2° 5986	0.80	1	23 29 0.46	1	− 1 47 59.2	B. D. − 2° 6071	0.81	2	23 54 26.60	2	− 2 24 27.3
B. D. + 4° 5029	0.81	2	23 29 18.52	2	+ 4 55 4.2	B. D. − 6° 6335	0.81	2	23 54 32.89	2	− 6 26 54.8
B. D. −11° 6110	0.80	2	23 30 17.21	2	−11 6 28.3	B. D. − 1° 4514	0.79	1	23 54 39.20	1	− 0 50 11.3
B. D. + 0° 5018	0.78	1	23 30 21.82	1	+ 0 45 39.7	B. D. + 5° 5245	0.85	1	23 54 46.93	1	+ 5 24 3.0
B. D. − 8° 6142	0.78	1	23 30 22.67	1	− 8 1 4.2	B. D. + 0° 5080	0.82	1	23 55 27.07	1	+ 0 30 32.5
B. D. − 6° 6239	0.82	1	23 30 38.02	1	6 18 6.7	B. D. − 0° 4603	0.80	1	23 55 31.51	1	− 0 20 1.9
B. D. − 9° 6220	0.82	2	23 30 50.65	2	− 9 19 6.1	B. D. − 5° 6097	0.81	1	23 55 52.31	1	5 29 5.4
B. D. + 2° 4686	0.80	1	23 30 59.13	1	+ 2 35 58.3	B. D. − 3° 5749	0.78	2	23 56 41.96	2	− 3 35 3.0
B. D. + 1° 4744	0.80	2	23 31 17.08	2	+ 1 32 50.4	B. D. + 7° 5121	0.80	3	23 57 22.99	3	+ 7 55 47.7
B. D. − 4° 5917	0.79	2	23 33 2.21	2	− 4 18 46.4	B. D. + 1° 4820	0.78	2	23 57 39.38	2	+ 1 34 33.2
B. D. − 9° 6224	0.80	2	23 33 2.66	2	− 9 10 51.2						

PART IV.

OBSERVATIONS

WITH THE

SIX-INCH TRANSIT CIRCLE.

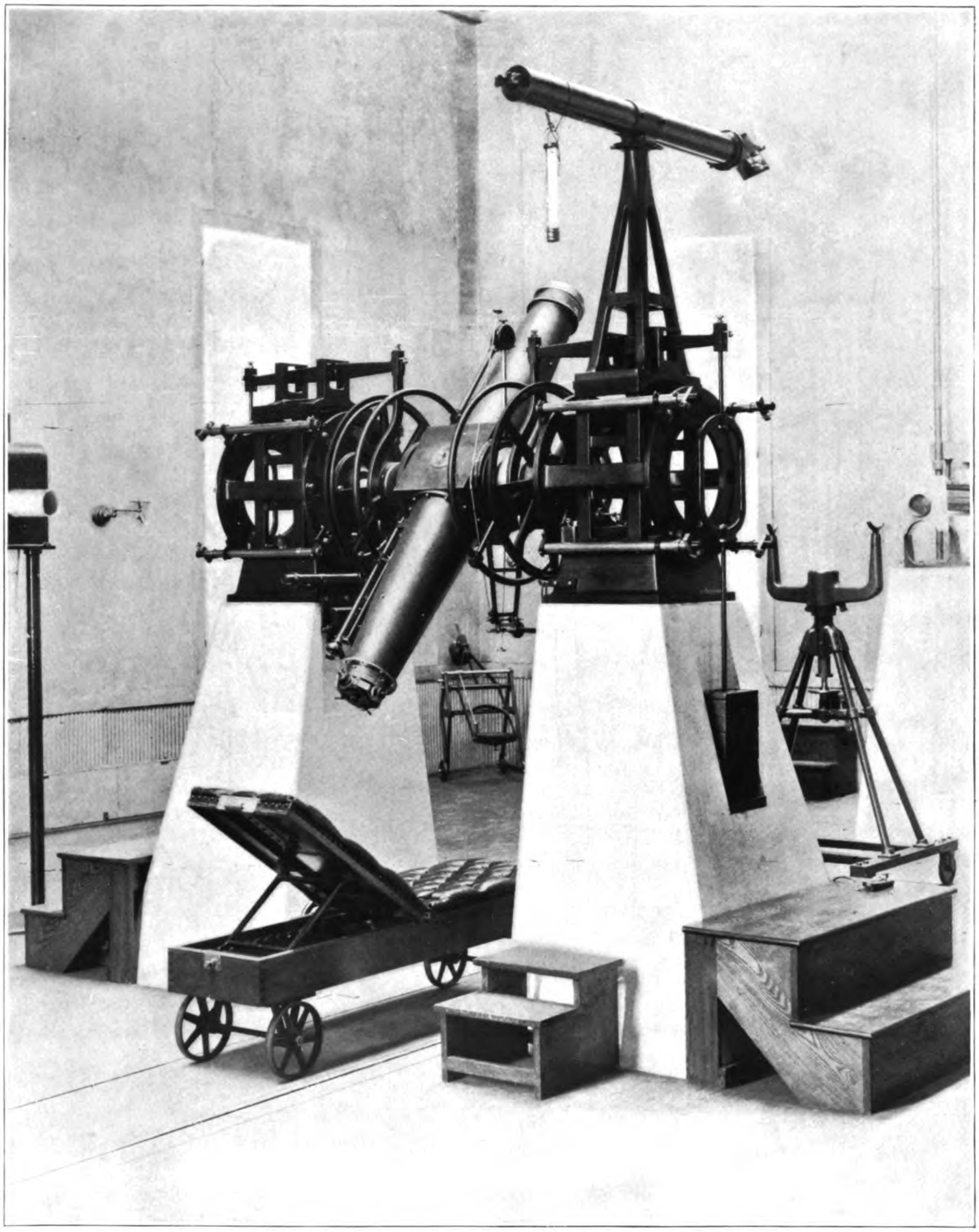
1900-1901.

BY

MILTON UPDEGRAFF,

ASSISTED BY

FRANK B. LITTELL AND GEORGE K. LAWTON.



THE 6-INCH TRANSIT CIRCLE.

U. S. NAVAL OBSERVATORY, WASHINGTON.   MOUNTED, 1897.

INTRODUCTION.

By Milton Updegraff.

The 6-inch steel transit circle designed by Prof. **William Harkness**, U. S. Navy, and made by **Warner & Swasey**, of Cleveland, Ohio, was mounted in December, 1897, by Mr. **Gottleib Fecker**, the instrument maker of the firm. From June 5, 1899, to January 20, 1900, while the 9-inch transit circle was undergoing repairs, this instrument was used in carrying on the regular series of observations of the Sun, Moon, and planets. I was placed in charge of the instrument on December 18, 1899, but necessary repairs and alterations delayed the commencement of observations until February 13, 1900, when work was begun on a list of 130 comparison stars for the planets.

The instrument is reversible and is similar in form to the modern **Repsold** type of meridian circles, the merits of which have recently been discussed in the astronomical journals, and examples of which exist in this country at the Lick Observatory and at several other places. The metal pier heads, long microscope bearers, and divided circles of relatively small diameter are among the principal features of meridian circles of this form.

The 6-inch transit circle differs from the **Repsold** instruments in that the telescope tube and circles are made of steel instead of brass, and in general the parts of the instrument are perhaps of somewhat heavier construction. The edge of the cube, for example, is longer in proportion to the diameter of the object-glass, being as 1 : 2, while in case of the **Repsold** instruments this relation is about as 1 : 1.5.

The instrument is symmetrical in appearance and convenient in use. The construction of the tube and circles of steel instead of brass is perhaps an important advantage, as steel is much the more rigid of the two metals, the coefficient of elasticity of steel being more than three times that of brass. The object-glass gives excellent definition. The massive concrete foundations on which the piers rest are apparently well constructed, and the sheet-iron building lined with zinc in which the instrument is mounted is admirably adapted to its purpose.

While many minor improvements in the instrument and its accessories were made before the observing was begun, yet during the entire time that this work was in progress the following defects existed in the instrument:

(1) Roughness and irregularity in form and position of the graduations of the circles.

(2) Oblique, unsymmetrical, and irregular illumination of the field.

(3) Bad definition of the circle microscopes, due in part to defective microscope objectives.

(4) Large variation of azimuth with temperature, approximately represented by the formula

$$a = a_0 + 0^s.03\,(t - t_0),$$

in which the temperature is expressed in Fahrenheit degrees.

(5) Meridian mark out of focus, being 4 or 5 feet south of the principal focus of the meridian-mark lens.

There were, under the circumstances, two alternatives; to delay indefinitely the commencement of work pending repairs, or to begin work with the instrument in its imperfect condition. The latter course was adopted for the reason that it would give a more intimate knowledge of the instrument with which to proceed in making alterations and also give opportunity for special investigations which were needed. The work has been made purely differential in order to eliminate as far as possible the effect of systematic errors due to the above defects or to lack of more thorough investigation.

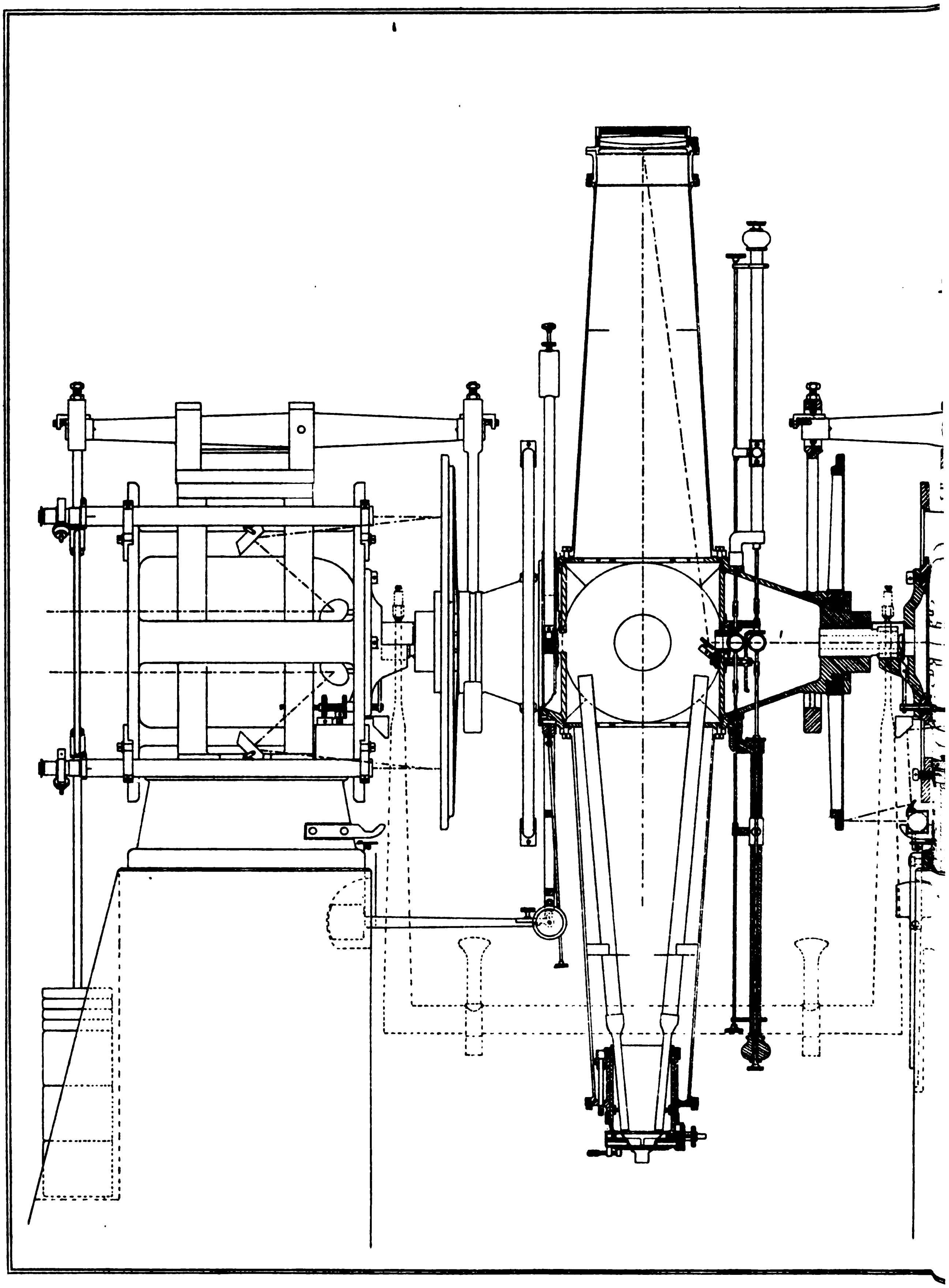
During September, 1900, the instrument was dismounted in making an unsuccessful attempt to find the cause of and to remove the azimuth variation due to temperature. Observations of stars were again discontinued on March 15, 1901, pending an attempt to remove this defect.

The circles were sent to the makers on April 24, 1901, to be regraduated. The work was done during the summer and the circles were returned to the Observatory on September 30. The apparatus for illuminating the field of the telescope has been remodeled by the Observatory instrument maker after designs by myself and is now entirely satisfactory. New microscope objectives have been made by Mr. J. A. BRASHEAR, but have not yet been brought into use. The causes of the azimuth variation, due to temperature, have been found, and that difficulty has been removed by substituting cast-iron foundation plates for the original cast-steel plates, which latter had probably been imperfectly annealed, and by replacing the marble piers of the instrument with brick piers. In order to correct the focus of the meridian mark it will be necessary to move the meridian-mark house and pier 4 or 5 feet northward.

With the introduction of these changes the instrument becomes practically a new one, and it seems desirable at this time to publish all observations that have been made up to date and also those instrumental investigations already made which pertain to the instrument in its former condition. As regards the observations of stars, all series which have been undertaken are complete, making it convenient to do this.

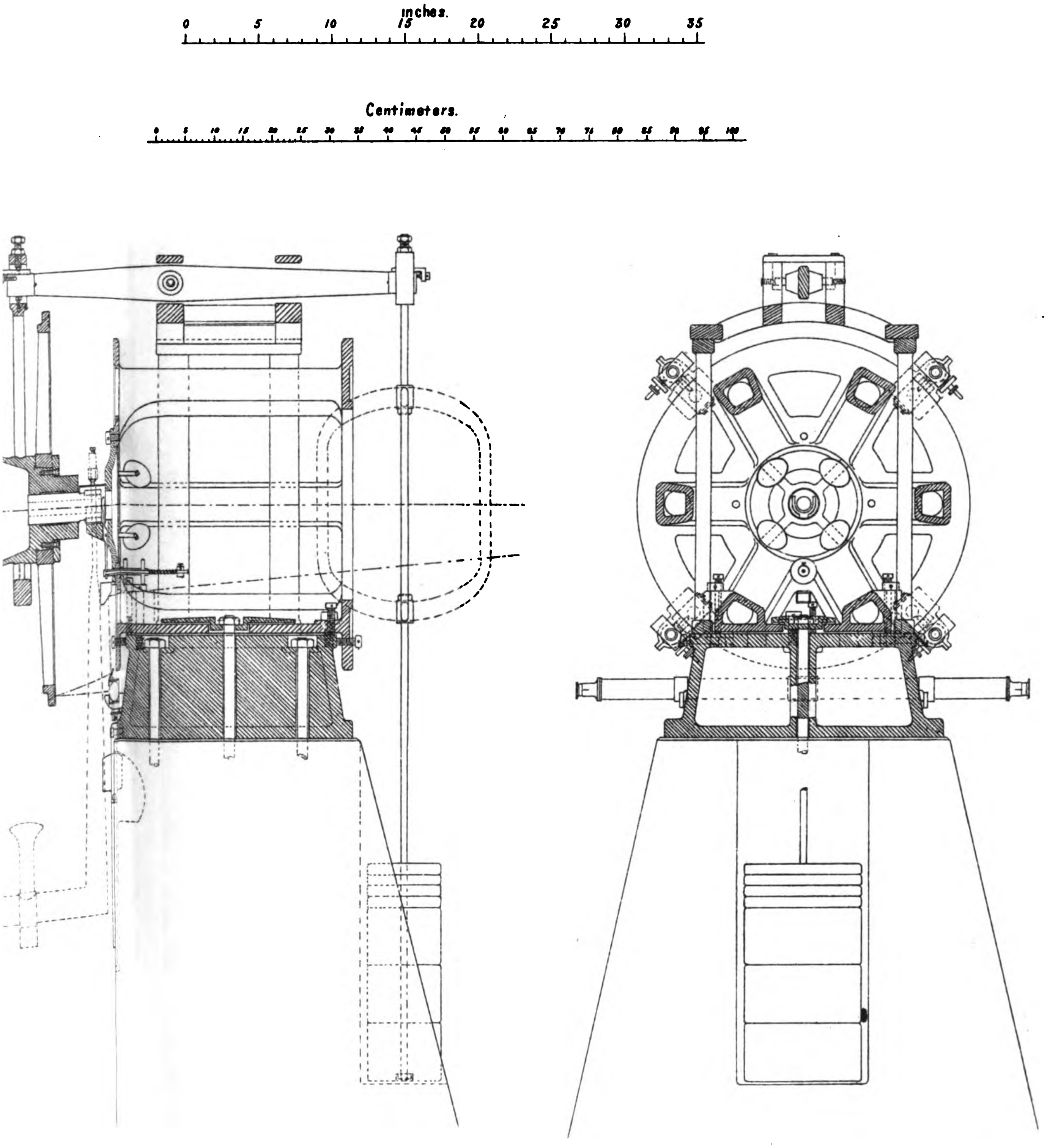
Since January 20, 1900, when the observations of the Sun, Moon, and planets with the 6-inch transit circle were discontinued, the instrument was used for nine months in observations of the fixed stars. The number of observations made is about 3,960. The number of determinations of the constants of the instrument during that time is about 1,830.

Until February 1, 1901, I was assisted in this work by Assistant Astronomer, (now Professor), F. B. LITTELL, whose efficient services both as observer and computer are hereby acknowledged. From December 8, 1900, to March 7, 1901, valuable assistance as microscope reader and recorder was rendered by Computer G. K. LAWTON, whose untimely death occurred in the month of July following. During June and July, 1900, excellent work was done by Computer J. C. HAMMOND as microscope reader and recorder.



6-inch Meridian Circle Made by Warner & Swasey.

W.W. Dinwiddie July 1902.



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

DESCRIPTION OF THE INSTRUMENT AND ACCESSORIES.

It is not proposed to attempt an exhaustive description of the instrument, but in addition to what has been stated above a more detailed account of the various parts of the instrument will be given.

The drawings for all the plates in this part of the volume have been prepared by Mr. W. W. DINWIDDIE, Assistant in Spectroscopic Work, to whose skill and interest in the work their excellence is due.

The telescope tube and axis.—The two conical halves of the telescope tube were intended to be exact duplicates, and each was made from an ingot of forged steel, bored out and machined both inside and outside so that the walls have a uniform thickness of one-eighth of an inch (0.32 cm.). There are flanges at each end, one with 12 screw holes for clamping to the cube, the other with 8 screw holes for securing the eye end and object-glass end to the tube. The eye end and object-glass end are interchangeable. The cube is 12 inches (30.5 cm.) on a side, and is cast in one piece with the two conical halves of the axis. It is carefully machined both inside and outside, and is pierced with two holes 4 inches (10.2 cm.) in diameter, through which the collimators are pointed on each other. These holes are closed with brass caps. There are two handwheels covered with leather for turning the telescope.

The telescope tube and axis and all the large parts of the instrument are painted a dark olive-green.

The pivots and wyes.—The pivots are 2.24 inches (5.69 cm.) in diameter, and consist of cores of soft iron or steel covered with cylindrical shells of hardened steel. Each pivot is perforated with a hole 1 inch (2.54 cm.) in diameter, and these holes are closed with brass plugs fitted with glass disks.

The wyes are of cast steel, and each is cast as one piece with a circular cheek 10.5 inches (26.7 cm.) in diameter, by means of which the wyes are secured to the microscope bearers with screws. Each pivot bears on the slightly rounded surfaces of two half-inch gun-metal plugs. These plugs are inserted in the sides of the wyes in such a way that the distance between the bearing points is 1.60 inches (4.06 cm.). The line joining these bearing points subtends an angle at the center of the pivot of very nearly 90°. There are vertical levers behind the wyes fitted with springs, clamps, and screw motions for adjusting and holding the telescope and axis in an east and west direction. The wyes of the hanging level are similar to those of the instrument, as stated below.

The object-glass.—The object-glass by BRASHEAR, is of the FRAUNHOFER type, and its clear aperture is 6 inches (15.24 cm.). The glass of which the lenses are made is almost colorless, the field is very flat, and the definition, as before stated, is excellent. The lenses are supported in the cell by means of two lugs and two springs, one of the latter for each lens, in the usual manner. The springs act in a direction perpendicular to the meridian, so that any change in collimation, due to the effect of temperature on the object-glass, should change the collimation in right ascension but not in declination. Our determinations of collimation in right ascension show, however, that there is no appreciable effect of this kind. Suitable adjusting screws are provided for squaring on the objective. The cell is not clamped directly to the telescope tube, but to a short section of the tube, 2.5 inches (6.4 cm.) long, which can be detached without disturbing the adjustment of the object-glass.

An unexpected but not very serious difficulty has arisen in that the focus of the telescope varies slightly with the temperature. The eye end has to be drawn out in summer and pushed in in winter one or two hundredths of an inch. The expansion and contraction of the steel tube seems not to be sufficient to compensate for the variation, due to temperature, of the focal length of the object-glass.

The eye end.—The sliding tube which carries the micrometer is 4.75 inches (12.1 cm.) in diameter and works in a sleeve 3.5 inches (8.9 cm.) long, which is made as one piece, with a flange 8 inches (20.3 cm.) in diameter, which latter is clamped directly to one of the conical halves of the telescope tube. The eye end is moved for focusing by means of two rings or collars, one inside and the other outside of the telescope tube, which screw on the sliding tube and act against the sleeve. The inside collar has teeth on its circumference and is turned by means of a pinion wheel whose shaft projects outside of the telescope tube near the micrometer box. By means of these collars the eye end is clamped firmly in place. But an additional safeguard is provided by four capstan-headed screws, which, working in the sleeve, abut against the sliding tube and fix the position of the eye end at right angles to the line of collimation. There is also a simple and effective device for turning and clamping the whole eye end so as to fix the threads of the reticule parallel to the meridian. The focusing screw has twelve threads to the inch (2.54 cm.).

The micrometer.—The micrometer box is of steel and is 5.2 inches (13.2 cm.) square, with the corners cut off. The right ascension and zenith distance micrometer heads are 2 inches (5.08 cm.) in diameter, and are divided to hundredths, every tenth division being numbered. Whole revolutions are counted on count scales. The zenith distance micrometer has also a scale on the outside of the box for whole revolutions, and a ROGERS recording apparatus. Both right ascension and zenith distance micrometer screws have 100 threads to the inch (2.54 cm.). The right ascension micrometer screw carries one vertical thread, and the zenith distance micrometer screw carries a double horizontal thread of width 6″. These with the threads of the reticule make three systems of threads, which must be nearly enough in the same plane for all to be in focus at the same time. There was considerable trouble with "fiddling" of the zenith distance micrometer threads when they were in use in the year 1899. The steel right ascension and zenith distance micrometer screws work in steel nuts.

The spider-line reticule.—The reticule is similar to that used here for many years on the 9-inch transit circle, a diagram of which is shown in Plate VIII, fig. 4, Washington Observations for 1865. The thickness of each thread is about 1″.1. Screws are provided for moving the reticule frame in right ascension for adjustment of the collimation.

Eyepieces.—There are four positive KELLNER eyepieces, designated as I, II, III, and IV, of powers 79, 90, 140, and 273, respectively. There are also two other eyepieces with colored glass between the lenses, for observations of the Sun. Eyepiece III, power 140, has always been used.

The circles.—These are of cast steel, supposed to be thoroughly annealed, and are of strong and symmetrical design. Each wheel has eight spokes. The diameter of the circles at the divisions is 25.5 inches (64.8 cm.). They are fitted on their conical bearings so as to be interchangeable, and are held in position by steel disks clamped against their outer faces. By unclamping these disks the circles can be rotated on their axes, but not very conveniently.

These circles are divided to two minutes, and each degree is numbered. The divisions are the same on the two circles, and are engraved on silver bands 0.22 inch (0.56 cm.) wide and 0.025 inch (0.63 mm.) thick, inlaid in the steel rims. These silver surfaces are inclined inward at an angle of 4° or 5° to the planes of the circles.

As stated above, the original divisions were not satisfactory, being rough and irregular in form and apparently also inaccurate in position. No determinations of division error have been made, but the probable error due to division error of the mean of four microscopes was determined by two independent methods which gave accordant results and was found to be about 0″.25.

The new divisions referred to above have been made on coin silver, instead of pure silver which had been used previously, and are much sharper and more regular in form than the old divisions. It is hoped that upon investigation the division errors will be found to be smaller than before.

The microscopes.—The microscopes for reading the divided circles are similar in design to those on the REPSOLD instruments, but are clamped to the microscope bearers in a different manner. There are four microscopes for each circle, with two extra microscopes for division error work. There is at present no way of illuminating the circles so that these auxiliary microscopes can be used. Double threads are used in setting on the divisions and a comb scale is provided in the field of each microscope. The steel micrometer screws have 100 threads to the inch (2.54 cm.). These screws turn in steel nuts, and therefore do not work as smoothly as they should. In April, 1900, one of them became jammed in the nut and had to be sent to the makers for repairs. The magnifying power of the microscopes on the circles is 32. The object-glasses are 1.0 inch (2.54 cm.) in diameter and 5.33 inches (13.54 cm.) focal length. They may be moved for adjusting the error of runs. When the new object-glasses are substituted for the old ones it is expected that the definition of these microscopes will be improved. The focal length of the microscopes is about 19.75 inches (50.16 cm.), the distance between the points of support is 17 inches (43 cm.), and the distance of the objectives from the circles is 7.3 inches (18.5 cm.). The microscope micrometer heads are of aluminum and are 1.25 inches (3.18 cm.) in diameter. They are divided into 60 parts and every tenth part is numbered. The design of the setting microscope is the same as that of the setting microscopes of the later REPSOLD meridian circles. The magnifying power on the divisions of the circles is about 17 diameters.

The illumination.—The field of the telescope, and the circles are illuminated by two lamps, each supported by two iron posts, one west and the other east of the instrument. The lenses of these lamps are 7.75 feet (2.36 m.) from the center of the cube, and the centers of the lenses are in line with the axis of the instrument. The clear aperture of the lenses is 3.9 inches (9.9 cm.). Either gas with WELSBACH burner or electric light may be used. The former gives the better results. For the illumination of the field, light is admitted through the hole in the pivot opposite the clamp. A series of colored-glass diaphragms makes it possible for light of four different colors to be used; red, orange, yellow, and white. These diaphragms are moved, and the intensity of the light is adjusted by means of a screw head near the eye end of the telescope. As originally constructed the instrument was provided with both bright-field and bright-wire illumination. It was possible to pass from one to the other by turning a screw head. The bright-field illumination was effected by means of two systems of mirrors, by each of which a ray of light was reflected obliquely upon the reticule at an angle of about 86°. These rays of light were symmetrically situated with reference to the meridian in a plane perpendicular to it, and were intended to be of equal intensity. While it was possible to adjust the mirrors so as to give rays of approximately equal brightness for any given position of the screw, used for adjusting the intensity of the illumination, yet on turning the adjusting screw this equality of brightness would be destroyed, thus giving rise to unsymmetrical illumination of the field. A defect of this kind might be expected to give rise to errors in observations in right ascension. The brightness of the field was also irregular. Some parts were so much brighter than others, when the light was turned down low, as to cause serious difficulty in observing faint stars. In reducing our observations with screens, for personal equation due to star magnitudes, discrepancies were found which are probably due to this defective illumination of the field.

In June, 1901, with the aid of the Instrument Maker, I changed the bright-field illumination so that it is now practically the same as that used in the REPSOLD meridian circles. One of the numerous mirrors, used in the old plan of illumination, was turned so as to reflect the light coming through the hole in the pivot opposite the clamp, to the center of the object glass. A small circular mirror, three-eighths of an inch (1.0 cm.) in diameter, was cemented to the center of the inner surface of the object glass, and was adjusted so as to throw the light perpendicularly upon the reticule. The old apparatus for adjusting the brightness and changing the color of the light is satisfactory and is still used. The brightness can be changed quickly and with great nicety from total darkness to any desired brilliancy. With the gaslight the brightness of the field is very uniform. The electric light also gives satisfactory results, except that when the illumination is turned down for ninth magnitude stars there is some lack of uniformity in the brightness of the field unless care is taken in adjusting the position of the incandescent filament. Stars of the ninth magnitude are easily observed in a sky of average clearness.

The old bright-wire illumination was also unsatisfactory. In making the changes above described some of the bright-wire mechanism was removed and the instrument now has bright-field illumination only. The parts have all been preserved and the bright-wire illumination can be restored at any time, if desired; but there is reason to doubt whether good transit observations of faint stars can be made with this illumination. The necessity of using the instrument for observing stars too faint to be accurately observed with bright-field illumination seems not likely to arise. All the observations printed here were made with the old bright-field illumination.

The method of illuminating the circles is the same as that employed in the more modern REPSOLD meridian circles, the light being reflected directly on the circles by means of mirrors. This, together with the optical arrangement of the long microscopes, exaggerates the minute irregularities of the division marks and gives them a rough and blurred appearance, which is prejudicial to accurate settings and injurious to the eyes. This difficulty has been almost entirely overcome by putting pieces of ground glass in the path of the rays, causing the light to be diffused and the divisions to appear beautifully clear and distinct. The precision of the microscope readings has been greatly increased, the work is less fatiguing to the eyes, and the settings of the microscopes can be made more quickly.

Clamp and slow motion in declination.—The instrument is clamped in declination by means of a screw which passes through a collar on the axis, and acts against a piece of metal which bears against the axis itself. The clamp arm is fitted with joints so as to avoid any possibility of disturbing the axis of the instrument in clamping. The clamp brackets are 20 inches (51 cm.) below the axis, and are curved so as to make room for the rectangular frame of the striding level.

The slow-motion handles are hard rubber disks about 2.5 inches (6.4 cm.) in diameter, mounted on horizontal brass rods about 10 inches long, which project from the lower end of the clamp arm. The action of the slow motion in declination has been very satisfactory since the introduction, in January, 1900, of a stronger spring in place of the one originally provided to act against the screw. Since our settings in declination are made with the slow-motion screw, it is important that it should work easily and smoothly. This screw is 0.32 inch (0.81 cm.) in diameter and has 36 threads to the inch (2.54 cm.).

The counterpoises.—The fulcrums of the counterpoise levers are supported on columns which rest directly on the bedplates, and are 17.0 inches (43.2 cm.) above the axis of the instrument. The inner ends of the counterpoise levers are 12.0 inches (30.5 cm.) long and the outer or weight ends 16.5 inches (41.9 cm.) long. When the instrument is out of the wyes the weights rest in recesses in the back of the piers. The weight left on each pivot is about 26 pounds (12 kilograms).

The microscope bearers and bed-plates.—The cast-steel microscope bearers, which carry not only the microscopes but also the wyes of the instrument, rest on bed-plates also originally of cast steel, which latter rest on the tops of the piers. These cast-steel bed-plates were found to give rise to a variation of the azimuth constant with temperature. On June 17, 1901, they were replaced by cast-iron bed-plates, which were made as nearly as possible of the same form as the old ones.

These bed-plates are frustums of pyramids, and are in a general way symmetrical with reference to a vertical line through their centers. They are rather heavily cast, planed on top and bottom, and are strengthened internally by transverse vertical webs. They are 19.0 by 17.0 inches (48.3 by 43.2 cm.) at the base, and 7.0 inches (17.8 cm.) thick. There are two vertical holes in each bed-plate on the east and west central line, counterbored at the top for the reception of two ¾-inch (1.90 cm.) anchor bolts for clamping the bed-plates to the piers. There is another vertical hole in the center of each plate for a third and longer anchor bolt of the same size, which passes through the base of the microscope bearer and clamps both bed-plate and microscope bearer to the pier. There are also on the under surface of each bed-plate two circular projections or lugs 2 inches (5.08 cm.) in diameter and nine-sixteenths of an inch (1.43 cm.) thick, which fit into holes in the piers counterbored around the east and west anchor bolts.

There are four holes 3 inches (7.62 cm.) square in the top of each bed-plate for the reception of four lugs or projections on the bottom of the microscope bearers. Four half-inch screws in the bed-plate act horizontally against these lugs and clamp the microscope bearer in a north and south direction. Two half-inch (1.27 cm.) screws in the circular flanges of the microscope bearer act horizontally against the bed-plate and clamp the microscope bearer in an east and west direction.

The microscope bearers are given a three-point support on the bed-plates by means of three vertical half-inch screws in the microscope bearer. Two of these screws are on the side next the telescope. They are 11.75 inches (29.84 cm.) apart, and their points of bearing on the bed-plates and the center of the pivot form an isosceles triangle, whose base is 11.75 inches (29.84 cm.) and whose altitude is 9.0 inches (22.9 cm.). The third of these supporting screws bears on a point eleven-sixteenths of an inch (1.75 cm.) north of the center of that side of the bed-plate farthest from the telescope. Thus the microscope bearers are not symmetrically supported. Each of these screws has near it a holding-down screw five-eighths of an inch (1.59 cm.) in diameter. All of these screws have capstan heads.

In the design of the instrument it was intended to use these supporting screws merely for the purpose of adjustment, and to let the microscope bearers down on small steel plates about 0.05 inch (0.13 cm.) thick, laid on the bed-plates near the supporting screws. Since this does away with the level adjustment, the practicability of the plan would seem to depend largely on the degree of steadiness of the level constant.

The microscope bearers themselves are drum-shaped castings of steel, similar in form to the cast-iron microscope bearers of the REPSOLD meridian circles. They are 17.2 inches (43.7 cm.) in length and 22.8 inches (57.9 cm.) in diameter.

The adjustments in azimuth and level.—These are made by means of the half-inch (1.27 cm.) capstan-head screws which support the microscope bearers on the bed-plates, and the adjustment in azimuth is also made by means of the four half-inch (1.27 cm.) screws in each bed-plate which clamp the microscope bearers in a north and south direction.

The piers and pier foundations.—The piers on which the instrument was mounted while these observations were in progress were monoliths of white marble, each weighing about 3.5 tons. The foundation of the piers of the instrument is a frustum of a pyramid of concrete, the dimensions of which are given on page D XI. The concrete frustum is surmounted by a granite capstone 1 foot (30.5 cm.) thick, on which the piers rest. Each of the marble piers was mounted on three pieces of cardboard 1 foot (30.5 cm.) square and about one-quarter of an inch (0.6 cm.) thick. These marble piers were removed in July, 1901, and in their place piers were constructed of brick laid in cement.

The piers rise 55 inches (140 cm.) above the floor and extend 18 inches (46 cm.) below it. The wyes of the instrument are 16 inches (40.6 cm.) above the tops of the piers.

The piers of the collimators, like the original piers of the instrument itself, are monoliths of white marble, supported on pieces of cardboard by concrete foundations, similar in form to those of the piers of the instrument, and having granite capstones 8 inches 20 cm.) thick. These pier foundations stand in the basement of the transit circle house and rest on massive concrete footings. The pier of the north meridian mark is of brick with heavy concrete foundations and is covered with a capstone of white marble. The dimensions of the piers and pier foundations are given in the following table.

Dimensions of Piers.

	Feet.	Meters.
Brick piers of instrument.		
Height above foundations..........	6.08	1.854
Length of base, N. and S..........	3.75	1.143
Width of base, E. and W..........	2.92	0.890
Length of top, N. and S..........	1.75	0.533
Width of top, E. and W..........	1.50	0.457
Distance between piers..........	3.27	0.997
Marble collimator piers.		
Height above foundations..........	6.33	1.930
Height above floor..........	4.83	1.473
Length at base..........	3.50	1.067
Width at base..........	3.17	0.966
Length at top..........	3.50	1.067
Width at top..........	1.33	0.406
North meridian mark pier.		
Height above floor..........	2.17	0.66
Horizontal length and breadth	3.00	0.91
Length and breadth of capstone ...	3.17	0.96
Thickness of capstone	0.33	0.10
Concrete foundations of piers of instrument.		
Height above concrete footings.....	8.42	2.57
Length of base, E. and W..........	14.00	4.27
Width of base, N. and S	12.00	3.66
Length at top of capstone..........	12.00	3.66
Width at top of capstone..........	6.00	1.83
Thickness of capstone	1.00	0.30
Concrete foundations of collimator piers.		
Height above concrete footings.....	8.42	2.57
Length of base, N. and S..........	7.75	2.36
Width of base, E. and W..........	6.83	2.08
Length at top of capstone, N. and S.	7.00	2.13
Width at top of capstone, E. and W.	3.00	0.91
Thickness of capstone..........	0.67	0.20

The horizontal collimators.—They are of 4.0 inches (10.2 cm.) clear aperture and 48.0 inches (122 cm.) focal length. The tubes are of brass. The distance between the object-glasses of the collimators is 24.5 feet (747 cm.), and each is 12.25 feet (373 cm.) from the axis of the instrument. The collimators rest directly on brackets of cast iron or steel and are provided with screws for adjustment in level and azimuth. The distance between the wyes of the collimators is 37.5 inches (95.2 cm.), and the diameter of the pivots is 4.8 inches (12.2 cm.). Stops 90° apart are provided for convenience in rotating the collimators about their axes through 90° or 180°. The micrometer screws have 100 threads to the inch (2.54 cm.) and the angular value of a revolution is about $2^s.84$. The power of the eyepieces is about 125 diameters. The micrometer screw of the north collimator carries two threads crossed at an angle of about 20° and that of the south collimator carries one vertical thread. A spirit level is provided, but is not sensitive enough to be of use for the purpose for which it was intended, the angular value of one division being 6″.5.

The vertical collimator.—This is of 4.0 inches (10.2 cm.) clear aperture and 51.5 inches (131 cm.) focal length. It is supported at a height of about 10 feet (3 m.) by means of a pyramidal steel casting which rests on the pillar which supports the fulcrum of the east counterpoise lever. It is provided with an adjustable mirror before the object-glass and with a micrometer. When not in use the telescope occupies a north and south position.

The axial collimator.—The axial collimator telescope is of 1.5 inches (3.8 cm.) aperture and 36 inches (91 cm.) focal length. With the 1-inch (2.54 cm.) eyepiece used, the magnifying power is about 36 diameters. The magnifying power of the apparatus on the glass diaphragm mentioned below is about 10 diameters. The micrometer screw has 100 threads to the inch (2.54 cm.) and the value of one revolution is about 56″.7. The telescope may be mounted on either the east or the west side of the instrument. It is supported in the center of the microscope bearer, the object-glass being near one of the pivots in which is inserted a small object-glass of 0.9 inch (2.3 cm.) aperture and 36.2 inches (91.9 cm.) focal length. A glass diaphragm with its plane perpendicular to the axis of the instrument is inserted in the other pivot. A small circular spot of india ink 0.0027 inch (0.069 mm.) in diameter on this diaphragm has been used in making micrometer settings. Since the object-glass in the pivot has, as before stated, a clear aperture of only 0.9 inch (2.3 cm.), only about two-thirds of the aperture of the object-glass of the collimator can be used. This causes imperfect definition of the image of the spot of india ink and diminishes the accuracy of the work which can be done with the apparatus.

Meridian marks.—The instrument is provided with a meridian mark to the north, which is seen through a lens of 6 inches (15 cm.) aperture, and 376 feet (115 m.) focal length. This lens is mounted on the north bracket of the north collimator, and the line of sight to the mark passes under the north collimator at an angle of depression of 2° 22′. The lens is adjusted so as to be perpendicular to the line of sight, and can be moved horizontally east and west by means of a screw which has a scale and index. A long rod with bevel gearing is provided for turning this screw, so that an observer at the eye end of the telescope may adjust the image of the mark to any desired position in the field.

The mark is a hole 0.02 inch (0.5 mm.) in diameter in a metal plate mounted on a casting which is set with plaster of paris in the capstone of the meridian-mark pier. The mark is illuminated by an incandescent electric light, which can be turned on or off by means of a switch in the observing room. As stated above, the mark is 4 or 5 feet south of the principal focus of the lens. It is also out of place in a lateral direction, so that the lens has to be placed with its center east of the meridian of the instrument 0.7 inch (1.8 cm.) in order to bring the image of the mark conveniently near to the middle thread of the reticule. Thus the line of collimation of the telescope when directed to the mark does not pass as near the center of the lens as it should.

The wooden house, 10 feet (3.0 m.) square, which shelters the meridian mark and pier, is without ventilation, and the line of sight to the mark passes for about 175 feet (53 m.) within about 3 feet (0.9 m.) of the ground. The image of the mark is at times very unsteady and blurred, especially in the daytime, which is, no doubt, to some extent due to the above conditions. Sometimes, in bright sunshine, the mark is entirely invisible with the stellar focus of the telescope, but becomes plainly visible on pulling out the eyepiece so as to bring the mark into focus.

As regards the nearness of the line of sight to the ground, conditions were worse during the entire time that these observations were being made. The line of sight approached in places to within about 1 foot of the ground until March, 1901, when the earth was removed to a depth of 1 or 2 feet where the ground was highest.

A lens of 6.5 inches (16.5 cm.) aperture, and about 185 feet (56 m.) focal length, together with cast-iron brackets for a south meridian mark were furnished in 1901 by WARNER &. SWASEY, but have not yet been put in place. The line of sight to the south mark will have about the same angular depression as the line of sight to the north mark, but will nowhere pass within less than 9 feet (2.8 m.) of the ground.

The hanging level.—The tube of this level was made by ADOLF PESSLER, of Freiberg, Saxony, and is numbered 37576. It is mounted in a steel box covered by a glass plate, on which the divisions are marked and numbered from 0 to 100. These divisions are 0.05 inch (0.13 cm.) apart, which is too close for accurate estimate of tenths in reading. The angular value of a division is $0^s.060$. The usual screws for adjustment are provided.

The frame of the level is rectangular in form, and is made of steel tubes covered with leather. The distance between the level wyes is 34.60 inches (87.88 cm.). The distance in each wye between the bearing points of the bronze plugs on the pivots is 1.61 inches (4.09 cm.), making the angular distance on the pivots between these bearing points very nearly 90°. The wyes are provided with counterpoise springs.

The mercury horizon for nadir observations.—This is a shallow basin 8 inches (20 cm.) square, which holds the mercury, and floats on mercury in another vessel supported in a wooden box. This box rests on layers of slate, felt, and sand, altogether about 9 inches (23 cm.) thick, which are intended to obstruct the transmission of vibrations to the mercury. The nadir basin is isolated from the floor, and precautions are taken to avoid air currents.

The sidereal clock used in making these observations is the HOWARD, No. 404, which has been used in connection with the 9-inch transit circle since 1894. The electric contact breaks on a three-point relay, which makes it possible for three observers to use the clock at the same time on as many different chronographs. This clock, which is apparently a very fine one, has DENNISON'S gravity escapement and the mercurial form of compensation. The mercury is contained in a cluster of four jars, which constitute the pendulum bob. While these observations were being made the clock was mounted on a granite pier in the clock room. Both clock and pier were inclosed in a wooden case 3.5 by 4 feet (1.07 by 1.22 m.), which afforded some protection against the rapid changes of temperature to which the clock room is subject, being above ground and without artificial regulation of temperature in summer. In winter the clock room is heated by a steam radiator located in the center of the room.

This work in right ascension being of a purely differential character, no elaborate discussion of the rate of the clock is necessary. Furthermore, the materials for such a discussion are lacking, as there was no thermometer in the clock case, and no record has been kept of the temperature of the clock. I have, however, collected the rates of the clock for the period June 5 to July 16, 1900, as deduced from observations by myself with the 6-inch transit circle, and also the mean temperatures for the corresponding time intervals from thermometer readings made by the watchmen at intervals of three hours, on the attached thermometer of a barometer which hangs in the hall of the main building of the Observatory. These temperatures are perhaps the nearest attainable approximation to the actual temperature of the clock. At all events, they should vary in approximately the same way as the temperature of the clock, because there was no artificial heat in either building during that time.

These rates and temperatures are given in the following table, and are plotted with the time on page D xv. The rate of the clock during this period is fairly well represented by the formula

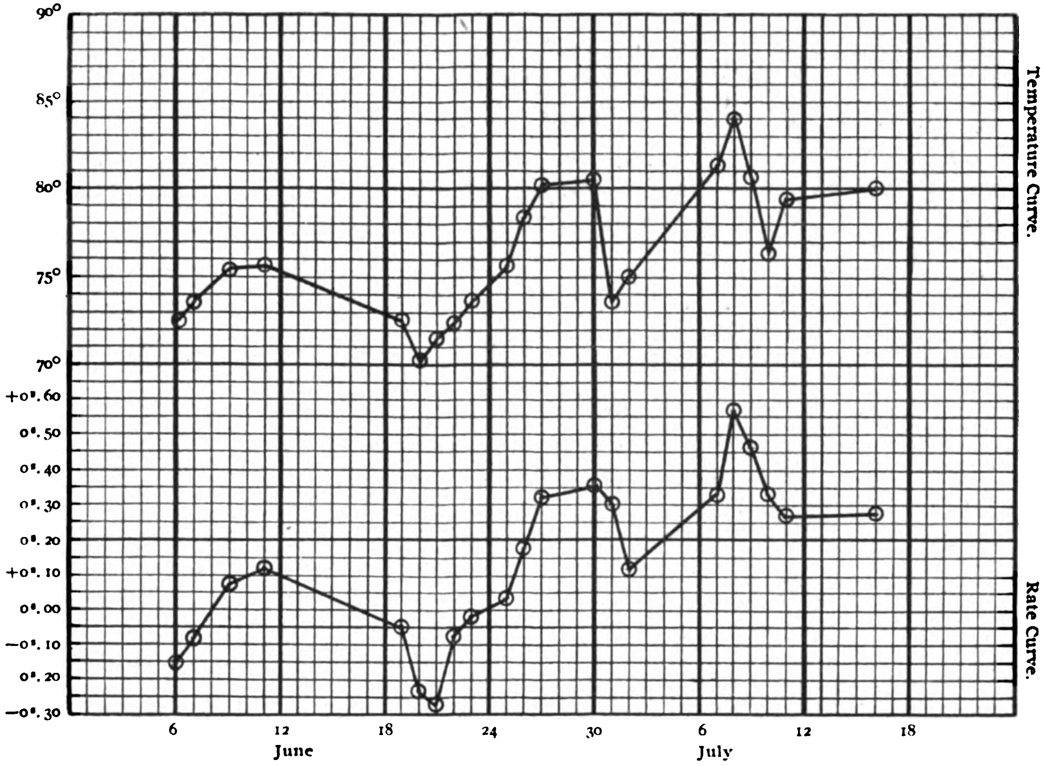
$$R = -0^{s}.24 + 0^{s}.06\,(t - 70^{\circ}\ \mathrm{F.}),$$

and the average deviation of the observed rates from the mean daily rate for the period is $0^{s}.19$.

Rate of Clock, Howard No. 404.

Date.	Sidereal Time.	ΔT.	Daily Rate.	Reduction to Mean Rate.	Temperature.*
1900	h	s	s	s	°
June 5	14.2	−21.75	−0.15	+0.29	72.5
6	14.3	21.90	−0.09	0.23	73.2
7	14.5	21.99	+0.08	0.06	75.4
9	15.3	21.83	+0.12	0.02	75.7
11	15.3	21.60	−0.05	0.19	72.6
19	16.3	21.98	0.24	0.38	70.1
20	15.3	22.22	0.27	0.41	71.6
21	14.1	22.49	0.07	0.21	72.2
22	14.5	22.56	−0.01	0.15	73.9
23	14.3	22.57	+0.04	+0.10	75.7
25	16.3	22.50	0.18	−0.04	78.3
26	16.3	22.32	0.31	0.17	80.1
27	17.8	22.01	0.35	0.21	80.5
30	18.0	20.96	0.30	−0.16	73.8
July 1	18.0	20.66	0.12	+0.02	75.0
2	18.0	20.54	0.34	−0.20	81.5
7	16.3	18.85	0.57	0.43	84.1
8	17.5	18.28	0.46	0.32	80.9
9	18.0	17.82	0.34	0.20	76.4
10	18.1	17.48	0.27	0.13	79.7
11	18.1	17.21	+0.28	−0.14	80.0
16	17.9	−15.80			
		Means....	+0.14	±0.19	76.3

*Read on thermometer in hall of main building of the Observatory.



Rate of Clock, Howard No 404. June 5 to July 16, 1900

Rate $= -0^s.24 + 0^s.06\,(t - 70^\circ)$.

On April 29, 1901, this clock was dismounted with the intention of transferring it to the newly constructed clock vault in the basement of the 6-inch transit circle observer's room, where it will be kept at a more uniform temperature. After the clock was dismounted, I opened the mercury jars and found that each lacked 0.75 inch (1.90 cm.) of being full. Furthermore, a computation based on the temperature coefficient, $+0^s.06$ per degree Fahrenheit, indicates that the jars will not hold enough mercury to compensate the clock.

The chronograph.—This is an old one by ALVAN CLARK & SONS, made from designs by Professor HARKNESS. When in good repair it served its purpose very well.

Barometer and thermometers, and thermometer shelter.—The barometer, GREEN No. 2876, is hung in a glass case on the north side of the clock pier on the west side of the observing room. It is 0.60 inch (1.52 cm.) bore, and has both English and metric scales. The metric scale is used.

A thermometer, GREEN No. 9361 (Centigrade), graduated to fifths of a degree, is used for refraction. It is mounted in the thermometer shelter on the north side of the building 10 feet (3 m.) from the ground. The corrections to this thermometer and to the attached thermometer of the barometer above mentioned have been accurately determined through the kindness of Prof. C. F. MARVIN, of the instrument division of the United States Weather Bureau.

A thermometer, GREEN No. 3920 (Fahrenheit), hung near the east microscope bearer, and a thermometer, GREEN No. 4195 (Fahrenheit), inserted in the hollow of the casting of the east microscope bearer, have been read for the temperatures of the air and the instrument, respectively.

In July, 1901, a hole 1.25 inches (3.18 cm.) in diameter and 15 inches (38 cm.) deep was drilled, at a point between the piers south of the nadir basin, down through the granite capstone into the concrete pier foundations. The thermometer, GREEN No. 3920, has been fitted so as to be conveniently let down with its bulb immersed in mercury in the bottom of this hole. Readings are taken once a week or oftener, and may be of interest in connection with records of the azimuth and level constants of the instrument.

The thermometer shelter, referred to above, is of louvre work, and is 2 feet (0.6 m.) square by 2.75 feet (0.84 m.) high. It is east of the slit on the north side of the building, and is 10 feet (3 m.) above the ground. A door gives access to the thermometer from inside the observing room. During the spring and summer months the Sun shines on the thermometer shelter early in the morning and late in the afternoon, causing the thermometer to read too high.

Other accessories.—The instrument is furnished with a mercury horizon for observation of stars by reflection, with a carriage and an iron track resting on the pier foundations and isolated from the floor. There are also a reversing carriage of iron, wooden steps for nadir observations and for observations with the vertical collimator, and an observing couch which is both inconvenient and dangerous. There is a sidereal clock, used merely for finding purposes, on a marble pier west of the instrument. The observing room is provided with suitable furniture and a convenient system of electric lights.

The 6-inch transit circle house.—Like the house for the 9-inch transit circle, it is built mainly of iron and rests on a heavy stone foundation. The iron framework is covered with corrugated iron painted white and is lined with zinc, with an air-space of 8 inches between. Louvre work in the sheathing at the bottom and openings under the eaves above, cause vertical currents in this air-space, especially in the daytime, which tend to keep the air temperature inside the building very nearly the same as that outside. The difference between the outside and inside temperatures is always small, being usually not more than 1° F. when the shutters are open. The slit is 3.67 feet (1.12 m.) wide and is closed with iron shutters. The mechanism for opening and closing the shutters was designed and made by WARNER & SWASEY, of Cleveland, Ohio, and is very satisfactory. The observing room is 30 by 40 feet (9.1 by 12.2 m.) inside measure, and the height from the floor to the roof is about 27 feet (8.2 m.).

The site of the building is higher than any other ground near by, and the horizon is clear on the meridian. A grove of trees on the west side of the building protects it from the strong west winds which sometimes prevail on clear nights. The massive footings of the concrete-pier foundations are embedded in a hard material, which is a mixture of red gravel and sand. This stratum is said to lie on bedrock and is overlaid by about 4 feet of reddish clay.

THE CONSTANTS OF THE INSTRUMENT.

The clamp was *east* until April 4, 1900, *west* April 5 to April 15, *east* April 16 to July 16, and *west* October 11, 1900, to March 15, 1901.

Until January 17, 1900, both circles were set so as to read zero on the setting microscope for stars at the zenith. On January 17, 1900, Circle A was turned so as to read zero at the equator, clamp east, and on April 5 it was set so as to read zero at the equator, clamp west. On April 27, 1900, Circle B was turned so as to read zero at the equator, clamp east.

The barometer, GREEN No. 2876, and the thermometer, GREEN No. 9361, have been read for refraction, except that the thermometer, GREEN No. 4194 (Fahrenheit), was used from February 13 to February 23, 1900. The corrections to these instruments have been determined with sufficient accuracy for the purpose for which they have been used, and the corrections have been applied.

The azimuth constant.—This constant has usually been determined by observations on the meridian mark. The azimuth of the mark being known from observations of a circumpolar star, usually α Ursæ Minoris, at both upper and lower culminations, the azimuth of the instrument is computed from measures made with the right ascension micrometer of the distance of the image of the mark from the middle thread of the reticule, known as c_3. The formula, see page D XLV, used for this purpose is

$$a = A_m + (2\,D_m + 2\,C_3 - 0.043\,b)\,0^s.952$$

When the mark has been observed the temperature has usually been read from a thermometer, GREEN No. 4195, inserted in a hollow of the steel casting of the east microscope bearer. During the time in which these observations were made the azimuth of the instrument varied with the temperature of the steel supports of the pivots in a manner approximately represented by the formula

$$a = a_0 + 0^s.03\,(t - t_0 \mathrm{F.})$$

This great unsteadiness in azimuth has made necessary frequent observations on the mark in order that, by interpolation, the exact value of the azimuth at the time could be used in the reduction of each observation. It is, perhaps, hardly necessary to state that the character of the variation of azimuth with the temperature was such that no formula could be constructed by which the azimuth at any time could be accurately computed from temperature readings. A statement as to the cause of this variation of the azimuth, and the means by which it was removed will be found on pages D XXVIII to D XXXV.

The level constant.—The adopted values of the level constant used in the reductions are those determined by means of the hanging level described on page D XIII. The levels have always been taken with the telescope directed northward toward the meridian mark. Four readings are usually taken, the level being reversed twice.

The level has usually been determined twice on each night, once before and once after the observations of the stars. The correction, $-0^s.014$ clamp west, see page D XXII, for inequality of pivots derived from caliper measures, has been applied.

Whenever practicable, the level has also been determined by observations over mercury. The mean of 96 determinations of the inequality of pivots from simultaneous observations of the level constant by these two methods gives $-0^s.019 \pm 0^s.0015$ clamp west. This indicates that our adopted values of the level and collimation constants are free from any considerable systematic error. The separate results are given in the table below.

The level constant has at times undergone sudden changes and also been subject to slow progressive changes. But there has been no change with temperature, such as that found in case of the azimuth, excepting for a few days in July, 1901, while the marble piers were cemented to their foundations.

Correction for Inequality of Pivots from Observations with Spirit Level, and over Mercury.

[Observer U.]

Date.	Clamp	Nadir Level.	Spirit Level.	Correction for Inequality. Clamp W.	Date.	Clamp.	Nadir Level.	Spirit Level.	Correction for Inequality. Clamp W.
1900		s	s	s	1900		s	s	s
Feb. 13	E.	−0.007	+0.002	+0.009	Mar. 30	E.	+0.584	+0.604	+0.020
14		−0.026	−0.092	−0.066	31		+0.610	+0.628	+0.018
14		−0.059	−0.058	+0.001	Apr. 1		+0.694	+0.720	+0.026
15		+0.042	+0.051	+0.009	1	E.	+0.687	+0.721	+0.034
19		+0.080	+0.092	+0.012	5	W.	−0.059	−0.033	−0.026
19		+0.110	+0.112	+0.002	5		+0.008	−0.014	+0.022
20		+0.234	+0.244	+0.010	14		+0.071	+0.094	−0.023
20		+0.223	+0.253	+0.030	14	W.	+0.048	+0.056	−0.008
23		+0.045	+0.016	−0.029	23	E.	−0.028	−0.067	−0.039
23		+0.009	+0.012	+0.003	23		−0.039	−0.079	−0.040
27		+0.174	+0.180	+0.006	24		−0.038	−0.044	−0.006
Mar. 2		−0.046	−0.054	−0.008	24		−0.056	−0.048	+0.008
2		−0.040	−0.087	−0.047	24		−0.101	−0.107	−0.006
2		−0.040	−0.091	−0.051	25		−0.146	−0.177	−0.031
3		−0.012	−0.017	−0.005	25		−0.156	−0.202	−0.046
3		−0.002	−0.029	−0.027	26		−0.132	−0.125	+0.007
3		0.000	−0.007	−0.007	26		−0.123	−0.156	−0.033
5		+0.111	+0.100	−0.011	27		−0.080	−0.084	−0.004
5		+0.128	+0.100	−0.028	27		−0.061	−0.071	−0.010
7		+0.107	+0.106	−0.001	June 5		−0.002	−0.020	−0.018
7		+0.161	+0.096	−0.065	5		+0.010	−0.031	−0.041
9		+0.167	+0 197	+0.030	8		−0.022	−0.054	−0.032
12		+0.177	+0.196	+0.019	9		−0.006	−0.014	−0.008
28		+0.571	+0.573	+0.002	19		−0.028	−0.027	+0.001
28	E.	+0.577	+0.565	−0.012	20	E.	−0.002	−0.018	−0.016

Correction for Inequality of Pivots from Observations with Spirit Level, and over Mercury—Cont'd.

[Observer U.]

Date.	Clamp.	Nadir Level.	Spirit Level.	Correction for Inequality. Clamp W.
		s	s	s
1900 June 20	E.	+0.007	−0.011	−0.018
20		−0.017	−0.014	+0.003
21		+0.029	−0.004	−0.033
21		+0.039	−0.004	−0.043
22		+0.033	+0.003	−0.030
23		−0.002	−0.019	−0.017
25		+0.011	−0.002	−0.013
26		+0.019	−0.011	−0.030
27		−0.007	−0.015	−0.008
30		+0.028	+0.011	−0.017
30		+0.028	+0.008	−0.020
July 7		+0.092	+0.071	−0.021
7		+0.092	+0.074	−0.018
8		+0.167	+0.148	−0.019
8		+0.177	+0.136	−0.041
9		+0.258	+0.241	−0.017
9		+0.238	+0.217	−0.021
10		+0.357	+0.326	−0.031
11		+0.449	+0.400	−0.049
11		+0.461	+0.420	−0.041
16		+0.676	+0.641	−0.035
16	E.	+0.682	+0.626	−0.056
Dec. 8	W.	+0.137	+0.164	−0.027
11		+0.187	+0.206	−0.019
13	W.	−0.056	−0.038	−0.018
1900 Dec. 13	W.	−0.071	−0.049	−0.022
19		+0.047	+0.077	−0.030
19		+0.040	+0.080	−0.040
28		+0.135	+0.159	−0.024
29		+0.083	+0.160	−0.077
1901 Jan. 9		+0.288	+0.365	−0.077
13		−0.107	−0.088	−0.019
16		−0.019	−0.009	−0.010
20		−0.057	−0.018	−0.039
Feb. 25		+0.151	+0.192	−0.041
25		+0.146	+0.166	−0.020
26		+0.129	+0.149	−0.020
26		+0.099	+0.128	−0.029
28		+0.133	+0.138	−0.005
28		+0.135	+0.164	−0.029
Mar. 2		+0.129	+0.182	−0.053
2		+0.135	+0.185	−0.050
7		+0.164	+0.193	−0.029
7		+0.160	+0.210	−0.050
8		+0.150	+0.188	−0.038
15	W.	−0.422	−0.410	−0.012

General mean $-0^{s}.019 \pm 0^{s}.0015$

The collimation constant.—The collimation of the telescope has usually been determined by means of the collimators once each night on which observations have been made in right ascension. The adopted values of the collimation have all been derived in this way. Occasionally, by way of a check, the telescope has been collimated by reversal on the north collimator and the results have been found to agree with those from the collimators. The accuracy of the adopted values of the collimation has also been tested by observations over mercury, as stated above.

The collimation constant has been, during certain periods, subject to a very slow change with the time, but there seems to be no change with temperature.

During the period June 4 to July 16, 1900, some of the spider threads of the reticule were loosened by dampness and were crooked at times. The middle thread c_3, which is used in determining the collimation of the mean of the threads, was one of those thus affected. A special value of the quantity Δi (CHAUVENET'S notation) was derived from the observations of the transits of each night and used in deducing the collimation for that night. These values of Δi are given in the following table.

Collimation—June 5 to July 16, 1900.

$[c_0' = c + \Delta i - 0^s.021 \cos \varphi.]$

Date.		Δi From Stars.	No. Stars.	c.	c_0'.	Adopted c_0'.
1900		s		s	s	s
June	5	+ 0.024	14	+ 0.042	+ 0.050	+ 0.041
	6	0.033	10	0.051	0.068	0.041
	7	0.028	27	0.038	0.050	0.041
	9	0.016	33	0.030	0.030	0.041
	11	+ 0.017	30	+ 0.031	+ 0.032	+ 0.041
	19	− 0.017	22	+ 0.052	+ 0.019	+ 0.041
	20	− 0.014	33	0.066	0.036	0.041
	21	+ 0.013	9	0.074	0.071	0.041
	22	− 0.040	13	0.078	0.022	0.041
	23	0.013	9	0.061	0.032	0.041
	25	− 0.008	18	+ 0.063	+ 0.039	+ 0.041
	26	− 0.009	31	+ 0.019	− 0.006	− 0.006
	27	+ 0.005	20	− 0.007	0.018	0.020
	27	+ 0.005	20	− 0.010	− 0.021	− 0.020
	30	− 0.007	27	+ 0.028	+ 0.005	+ 0.005
July	1	0.029	30	0.078	0.033	0.033
	2	− 0.050	23	+ 0.085	+ 0.019	+ 0.019
	7	− 0.021	11	+ 0.050	+ 0.013	+ 0.013
	8	0.029	22	0.050	+ 0.005	+ 0.005
	9	0.021	21	0.036	− 0.001	− 0.001
	10	0.021	26	0.059	+ 0.022	+ 0.026
	11	0.018	25	0.062	0.028	0.026
	16	− 0.011	22	+ 0.055	+ 0.028	+ 0.026

For record of instrumental constants, *a*, *b*, and *c*, see Table III, page D LX.

The nadir points of the circle.—These are determined by observation of the reflected image of the fixed double zenith distance threads. The illumination of the field is effected by means of an oil lamp and nadir cap. In making the pointings the space of 9″ between the fixed threads, seen direct, is bisected first by the reflected image of one of the threads and then by the reflected image of the other thread. The microscopes on one of the circles, A for example, are read for each pointing of the telescope, and the mean is the reading for the nadir point on Circle A. When the observer has an assistant this operation is repeated on Circle B. Here, as in the observation of stars, the observer reads the microscopes on Circle B and the assistant reads on Circle A. The setting microscope is so adjusted that the nadir lines of the circles are the same, clamp west and clamp east. All observations of the nadir point have thus far been made with the observer facing north. After the change of position of Circle B on its axis on April 27, 1901, the 56′ lines were invariably employed in the determination of the nadir point on both Circle

A and Circle B. Before that time the 4′ lines were used on Circle A until April 3 and the 56′ lines thereafter. The even-degree lines were used on Circle B from April 7 to April 27, inclusive. The nadir lines used on Circle B from February 13 to April 5 are unknown, except that the 58′ lines were used on April 5.

For record of nadir points, see Table IV, page D LXIX.

Error of runs.—The error of runs has been carefully determined on ten-minute spaces of the circle and the four microscopes on each circle have been kept so adjusted that the mean error of runs has always been very small. No correction for the error of runs has been applied to the observations. The definition of the microscope objectives has been so poor that a really accurate determination of the runs has hardly been possible. The errors from this source affecting the observations in declination are very small, and it is likely that the small corrections for runs which might have been applied would have been misleading.

Inequality and irregularity of the pivots.—A series of differential measures of the pivots with an instrument known as the spherometer-caliper was made by myself during the period October 6 to October 15, 1900. The work was done during the same time, in duplicate, by Mr. LITTELL. A description of the spherometer-caliper may be found in DOOLITTLE'S Practical Astronomy, page 300. Measurements were first made on that diameter of each pivot which is perpendicular to a line through the center of the pivot and parallel to the telescope tube designated as AB. The instrument having been placed on the reversing carriage with the telescope tube horizontal, five settings were made on the vertical diameter of one of the pivots; then ten settings were made on the vertical diameter of the other pivot, and finally five more settings were made on the pivot first measured. The instrument was then turned through 180° about its horizontal axis and a similar series of measures was made. The first series is regarded as direct and the second as reverse.

Measurements were also made in the same way on the two other diameters which make angles of 54° with the one just measured, CD and EF. To do this the instrument was turned so as to bring these diameters into a vertical position, as the spherometer-caliper can be used only in a vertical position in which the spherometer plate is horizontal. Care was taken to measure that part of each pivot which bears on the wyes when the instrument is in use.

Although not theoretically a perfect instrument, the accuracy of which the spherometer-caliper is capable when properly handled is remarkable, and the small irregularities in the form of the pivots which are indicated by these measures must be regarded as in part real. The imperfections are such as to cause small but appreciable errors in observations in right ascension.

The value of one revolution of the spherometer screw is 0.010 inch (0.0254 cm.). The results given below are differences between corresponding measures on the two pivots.

Summary of Measures of Pivots with Spherometer-Caliper.

Diameter.	No. Series.	Difference.			Mean of Direct and Reverse.
		Observer U.	Observer L.	Mean.	
		r	r	r	r
AB Direct	6	0.0083	0.0097	0.0090	0.0070
AB Reverse	6	0.0043	0.0056	0.0050	
CD Direct	2	0.0054	0.0057	0.0056	0.0059
CD Reverse	2	0.0057	0.0066	0.0062	
EF Direct	4	0.0078	0.0090	0.0084	0.0056
EF Reverse	3	0.0026	0.0029	0.0027	
		Mean			0.0062

This result gives 0.000062 inch (0.000157 cm.) as the mean difference of the measures on the pivots.

The mean difference in the radii of the pivots is 0.000026 inch (0.000066 cm.), and the correction for inequality of pivots to be applied to determinations of the level constant with the hanging level is as follows:

$$-0^s.014 \quad \pm 0^s.0014 \quad \text{clamp west.}$$

$$+0^s.014 \quad \pm 0^s.0014 \quad \text{clamp east.}$$

The probable errors are not accurately determined.

The regularity in form of the pivots was tested with the hanging level in October, 1900. In this work the position of the level bubble was read with the telescope set at intervals of 10°. Each series was repeated backward in order to eliminate any progressive change in the hanging level or in the level constant of the instrument. In reducing the observations a residual was derived for each setting of the telescope by subtracting the mean reading of the bubble for that setting from the mean reading of the bubble for the whole series. In collecting the results it has been assumed that the position of the level bubble would be the same for settings of the circle differing by 180°, since the angles of the wyes of the instrument and of the hanging level are equal.

The following summary of results shows slight irregularities in the pivots, which seem to be of about the same order as those indicated by the spherometer-caliper measures. The angular value of one division of the striding level, the unit of the table, is $0^s.060$.

Summary of Results of Tests of Pivots with Hanging Level.

Setting.	Clamp W.	Clamp E.	Clamp W.	Clamp E.
°	d	d	d	d
35	−0.3	−0.1	−0.3	+0.1
210	−0.2*	0.0	−0.3	−0.1
25	−0.2	−0.1	−0.2	−0.1
200	+0.2*	−0.5	+0.1	−0.4
15	0.0	−0.2	−0.1	−0.2
190	+0.2*	−0.6	−0.1	−0.4
5	0.0	−0.4	−0.2	−0.2
180	0.0*	−0.4	−0.2	−0.3
355	+0.1	−0.1	+0.1	0.0
170	+0.1*	+0.1	+0.2	−0.1
345	0.0	+0.2	+0.3	+0.3
160	+0.2*	+0.1	+0.3	+0.1
335	0.0	0.0	+0.2	+0.2
150	0.0*	0.0	+0.3	+0.1
325	0.0	0.0	+0.1	+0.2
140	+0.1*	+0.1	−0.1	+0.2
315	0.0	+0.2	−0.2	+0.5
130	−0.1*	+0.2	−0.2	+0.1
305	+0.1	+0.2	−0.1	+0.2
120	+0.1*	+0.1	0.0	+0.1
295	+0.1	−0.1	0.0	−0.2
110	+0.1*	−0.3	−0.1	−0.2
285	−0.2	−0.3	−0.1	−0.2
100	0.0*	−0.2	−0.4	−0.4
275	−0.2	−0.3	−0.3	−0.2
90	−0.3*	0.0	−0.3	−0.1
265	+0.2	0.0	+0.1	−0.1
80	+0.1*	+0.2	+0.2	+0.1
255	+0.1	+0.2	+0.5	+0.3
70	0.0*	+0.4	+0.4	+0.2
245	0.0	+0.2	+0.3	+0.1
60	+0.1*	+0.4	+0.3	+0.1
235	0.0	+0.2	+0.4	0.0
{ 50	·0.1*	+0.4	0.0	+0.3
{ 230	0.0	+0.1	−0.2	−0.1

*These residuals were obtained from settings on 52°, 62°, 72°, etc., instead of 50°, 60°, 70°, etc.

Observations with the axial collimator.—In November, 1900, observations were made with the axial collimator, described on page D XII, with a view to detecting any possible instability of the axis of the instrument during rotation, which might arise from imperfections of the pivots or any other cause. Considerable difficulty was found in getting a suitable spot or point on the glass diaphragm on which to make the micrometer settings. After several experiments had been made a feasible plan was suggested by Photographer G. H. PETERS. By spattering india ink on a thin glass plate some minute spots were formed which were sensibly circular under a high magnifying power and opaque or nearly so. A small piece of the glass plate with the india-ink spots on it was cut out and cemented on the glass diaphragm. One of these small spots or disks near the center of the diaphragm and about 0.0027 inch (0.0069 cm.) in diameter was used in making the micrometer settings. As seen in the field of the telescope the edges of this small disk were not well defined. This was no doubt in part due to the large ratio, 1 : 40, of the available aperture of the telescope of the axial collimator to its focal length, referred to on page D XII. The spot was about 0.02 inch

(0.05 cm.) from the center of the west pivot, and, as the instrument rotated on its axis, moved on the circumference of a small circle of about 0.02 inch (0.05 cm.) radius.

In making the observations the micrometer box was first adjusted to a horizontal position by means of a small level. The instrument was set at intervals of 10 degrees and the position of the spot observed by bisecting it with the micrometer. The spot was bisected three times in each position and the mean taken. After observations had been made throughout a complete rotation of the instrument, they were repeated backward in order to eliminate the effect of changes in the apparatus as far as possible. This work was very fatiguing to the eyes, and in each series the direct observations were made by myself and the reverse observations by Mr. LITTELL.

Eight complete series of observations were made, four with the micrometer horizontal and four with it vertical. The telescope was mounted on the east microscope bearer and the clamp was west. The settings of the instrument were made on Circle A, which read zero when the telescope was pointed at the equator. The circle settings increase northward.

If while the instrument rotates its axis remains fixed with reference to the line of collimation of the view telescope of the axial collimator, the image of the point on the diaphragm on which the micrometer settings are made describes a perfect circle whose radius is the distance of the point from the axis. The distance in micrometer revolutions, M, of the point from the zero of the micrometer will be given, for any reading, R, of the divided circle, by the formula

$$M = C - a \cos (R - K), \tag{1}$$

in which C is the distance of the center of the circle from the micrometer zero, a the radius of the circle, both in micrometer revolutions, and K the circle reading for the point where the circle is tangent to the micrometer thread and nearest to the micrometer zero. By differentiating this equation we get

$$\Delta M = \Delta C - \Delta a \cos (R - K) - a \Delta K \sin (R - K), \tag{2}$$

in which ΔK is in radians.

In reducing these observations, approximate values of C, a, and K were adopted, and the substitution of these values in equation (2) gave an observation equation for each measured position of the point. Then the corrections to the approximate values of the elements were deduced by least squares, and the corrected elements when substituted in equation (2) produced the differences between the observed and computed positions of the point. The residuals given in the table below are each the mean of the results of observations made in two similar series. They are no doubt principally the results of errors of observation. The results of the horizontal and vertical measures have each been plotted in a curve; see page D XXVI. It will be seen that the evidence of systematic change in these residuals is more marked in case of the horizontal than in case of the vertical measures. There seems to be no reason why systematic errors of observation or of the micrometer should not affect the horizontal and vertical measures alike. On this account there is perhaps reason to believe that this slight apparent change in azimuth of the axis of the instrument is real. The form of the curve is very nearly that which would be produced if one of the pivots were slightly elliptical, with a difference between the semi-major and semi-minor axes of the pivot section, of 0.000027 inch (0.000069 cm.). (See *Astronomische Nachrichten Nr. 3712.*)

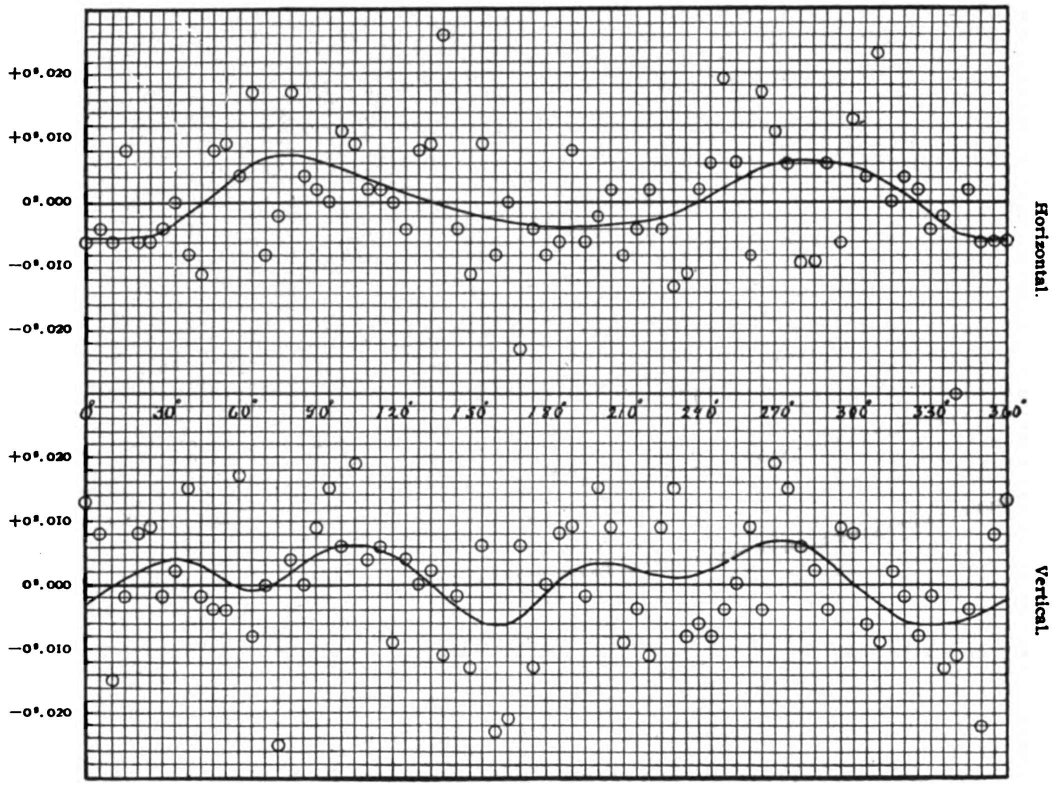
The apparent changes in level are also small, and are no doubt in part due to minute irregularities of the pivots. The indicated variations from the mean position of the axis are of about the same amount in both level and azimuth, and seem to be at the maximum about ± $0^s.007$.

Results of Observations with Axial Collimator.

[Clamp West. Collimator on East Side.]

Circle Setting.	Displacement of Axis.		Circle Setting.	Displacement of Axis.	
	Horizontal.	Vertical.		Horizontal.	Vertical.
°	s	s	°	s	s
0	−0.006	+0.013	180	−0.008	0.000
5	−0.004	+0.008	185	−0.006	+0.008
10	−0.006	−0.015	190	+0.008	+0.009
15	+0.008	−0.002	195	−0.006	−0.002
20	−0.006	+0.008	200	−0.002	+0.015
25	−0.006	+0.009	205	+0.002	+0.009
30	−0.004	−0.002	210	0.008	−0.009
35	0.000	+0.002	215	−0.004	−0.004
40	−0.008	+0.015	220	+0.002	−0.011
45	−0.011	−0.002	225	−0.004	+0.009
50	+0.008	−0.004	230	−0.013	+0.015
55	+0.009	−0.004	235	−0.011	−0.008
60	+0.004	+0.017	240	+0.002	−0.006
65	+0.017	−0.008	245	+0.006	−0.008
70	−0.008	0.000	250	+0.019	−0.004
75	−0.002	−0.025	255	+0.006	0.000
80	+0.017	+0.004	260	−0.008	+0.009
85	+0.004	0.000	265	+0.017	−0.004
90	+0.002	+0.009	270	+0.011	+0.019
95	0.000	+0.015	275	+0.006	+0.015
100	+0.011	+0.006	280	−0.009	+0.006
105	+0.009	+0.019	285	−0.009	+0.002
110	+0.002	+0.004	290	+0.006	−0.004
115	+0.002	+0.006	295	−0.006	+0.009
120	0.000	−0.009	300	+0.013	0.008
125	−0.004	+0.004	305	+0.004	−0.006
130	+0.008	0.000	310	+0.023	−0.009
135	+0.009	+0.002	315	0.000	−0.002
140	+0.026	−0.011	320	+0.004	−0.002
145	−0.004	−0.002	325	+0.002	−0.008
150	0.011	−0.013	330	−0.004	−0.002
155	+0.009	+0.006	335	−0.002	−0.013
160	−0.008	−0.023	340	−0.030	−0.011
165	0.000	−0.021	345	+0.002	+0.004
170	−0.023	+0.006	350	−0.006	0.023
175	−0.004	−0.013	355	−0.006	+0.008
180	−0.008	0.000	360	−0.006	+0.013

Plot of Results of Observations with Axial Collimator, 6-inch Transit Circle, October, 1900.



Angular value of one division of the hanging level, PESSLER *No. 37576.*—The value of a division of this level was determined in May, 1899, at an average temperature of 63° F. by Prof. A. N. SKINNER, U. S. Navy, and six other observers. The mean result obtained is,

$$\text{Angular value of 1 division} = 0^{s}.060$$

Another determination by myself in January, 1900, at an average temperature of 24° F. gave exactly the same result. The work was done in both cases with the STACKPOLE level trier No. 1994. In case of the last of the above determinations the angular value of one revolution of the screw was found to be $120''.34$, which is in close agreement with the value adopted and used before. Care was taken to use different parts of the screw in order to diminish the effect of periodic errors. The length of the level-bubble used was about 40 divisions. The following summary of the latter series of observations shows the quality of this level. The bubble and the level constant of the instrument are kept adjusted so that only divisions of the scale from 10 to 80 are used.

Angular Value of One Division of the Hanging Level.

Mean Reading of Center of Bubble.	No. Divisions of Level to 10 Divisions on Screw-head.	Angular Value of 1 Division of Level.
d	d	″
23.3	12.53	[0.801]
27.5	11.88	0.845
33.0	10.88	0.922
38.0	10.57	0.949
43.6	10.48	0.957
49.2	11.29	0.889
54.6	11.48	0.874
60.6	11.34	0.885
67.0	12.70	[0.790]
71.2	13.26	[0.757]
	Mean value of 1 division...	0.903
		$0^{s}.0602$
	Adopted value of 1 division.	$0^{s}.060$

By way of a check against displacement of the level tube or other changes, an approximate determination of the value of a division of this level was made in May, 1901, at temperature 67° F., with the result, 1 division = $0^{s}.061$, which indicates that no considerable change had taken place.

Angular values of one revolution of the right ascension and zenith distance micrometer screws.—The value of one revolution of the right ascension micrometer screw was determined in July, 1899, by measures on the known thread intervals of the spider-line reticule. The resulting value, adopted and used until July 17, 1900, is,

1 revolution right ascension micrometer screw = $1^{s}.900$.

On December 17, 1900, a new determination was made based on the thread intervals of the new reticule. The result below has been adopted and used since July 17, 1900.

1 revolution right ascension micrometer screw = $1^{s}.902$.

The value of one revolution of the zenith distance micrometer screw was determined in July, 1899, by observations over the nadir on the lengths of arcs of Circle B. The resulting value is,

1 revolution zenith distance micrometer screw = $28''.494$.

The values of a revolution of the north and south collimator micrometer screws have been determined as follows:

1 revolution north collimator micrometer screw = $2^{s}.84$,
1 revolution south collimator micrometer screw = $2^{s}.86$.

Equatorial thread intervals of reticule.—Considerable difficulty has been experienced in getting suitable spider threads in the reticule. A new reticule was put in by Messrs. WARNER & SWASEY in February, 1900. Some of the threads of this reticule were imperfect to begin with. But in our anxiety to avoid delay, work was commenced and the intervals accurately determined during February and March. As before stated, in June and July some of the threads of the reticule became visibly slack and crooked, which was no doubt caused by the warm and humid weather which prevailed at that time. During August, 1900, a new reticule was put in by Messrs. WARNER & SWASEY, which is much better than the old one. The intervals of this reticule were determined in October and November, 1900, from observations made both by eye and ear, and on the chronograph. The results from the two methods agree well. For adopted values of intervals of these two reticules, see Table I, page D LIX.

Inclination of the fixed horizontal threads.—When both divided circles are read in declination, clamp west for example, the bisection of the star for Circle A is made before the transits are observed, and the bisection for Circle B is made afterwards. A correction to each circle reading for inclination of the threads is necessary to reduce the reading to what it would be had the bisection been made on the middle thread.

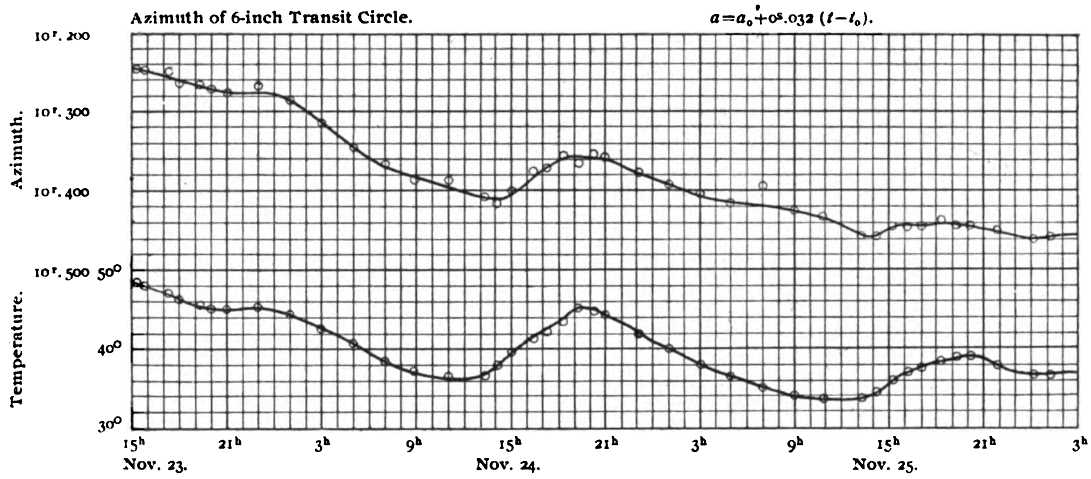
The inclination of the threads has been determined by special observations for the purpose. A star, usually between the equator and the zenith, is bisected on Thread I and both circles read. The same thing is done when the star crosses Thread VII. If the instrumental constants are properly adjusted no correction for them is necessary. A few observations of this kind give the corrections for inclination within the limits of the reticule with a high degree of accuracy, and when, in regular observations, the bisections are made at equal distances from the middle thread, any error in the adopted correction for inclination is eliminated from the final results. For adopted values of inclination, see Table II, page D LIX.

STATEMENT CONCERNING VARIATION OF THE AZIMUTH WITH TEMPERATURE.

When observations with this instrument were commenced in June, 1899, it was found to be subject to an extraordinary variation in azimuth. In November, 1899, while an observer on the instrument, I plotted some of the observed azimuths and the corresponding temperatures of the air, with the time, and found that the azimuth seemed to vary with the temperature.

With the permission of Professor HARKNESS, then Astronomical Director, I made a series of observations of azimuth and temperature at intervals of one or two hours and extending over two and one-half days. The temperatures were read from a thermometer, GREEN No. 4195 (Fahrenheit), inserted in a hollow of the casting of the east microscope bearer, and are therefore approximately the temperatures of the metal supports of the wyes. A plot of the temperature and azimuth with the time, see fig. 1, page D XXIX, showed that the variation of the azimuth was a function of the temperature. The response to temperature changes seemed to be almost without delay or drag, and the trouble, for this reason, was supposed to be in the metal supports of the pivots. The absence of any corresponding change in the level was a puzzling feature. The instrument was then in use in regular observations of the Sun, Moon, and planets, but during the following December and January, when it was possible, various experiments were tried by way of changing the tension of the adjusting screws both in level and azimuth, but nothing that was done seemed in any way to affect the change of the azimuth with the temperature. While the variation was large, amounting to about three hundredths of a second of time for 1° F., it was still possible to do very accurate work with the instrument by making frequent readings on the meridian mark, and observations of stars were carried on from February 13 to July 16, 1900.

In September, 1900, the instrument was dismounted two or three times and remounted on the piers in a different way, in order to find out whether the trouble was due to the manner of connection between the marble piers and the cast-steel bed-plates. The bed-plates had been originally mounted on the piers by setting each of them in position on three small pieces of paper and running liquid plaster of paris under them. In doing this the plaster of paris had not spread evenly under the plates, leaving large vacant places in such a way that the instrument was, perhaps, in part supported by these small pieces of paper, which had been intended merely as temporary supports. The plaster of paris was so soft that it could easily be crumbled with the fingers. The two anchor bolts in each pier for clamping down the bed-plates had been set with plaster of paris, which was so soft that the bolts were readily drawn out.



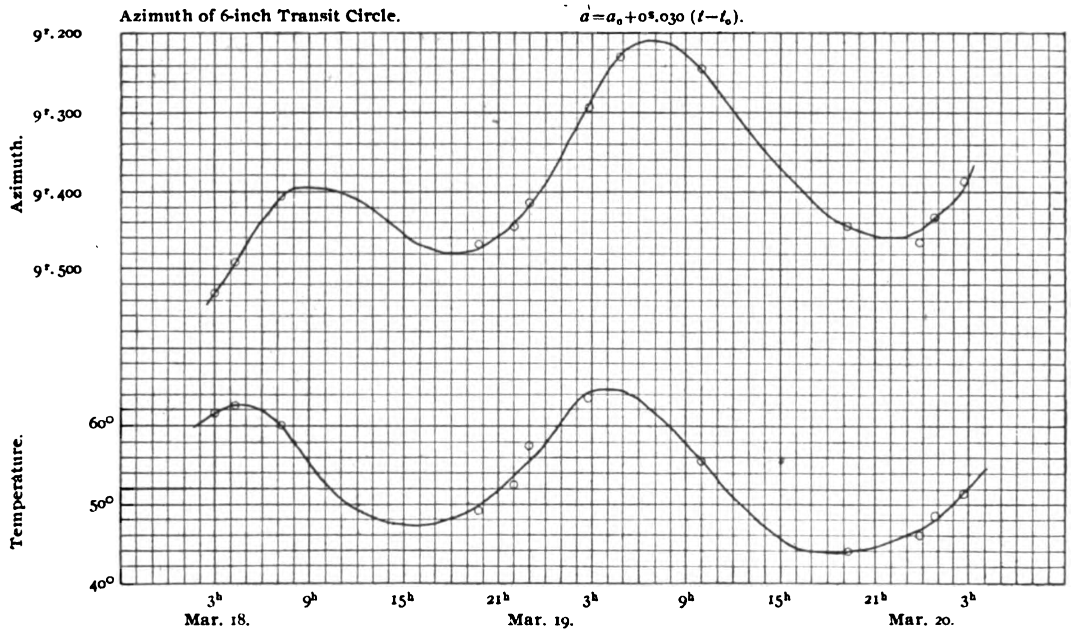
1.—*Instrument as Originally Mounted. Nov. 23–25, 1899.*

The bed-plates, when the instrument was first remounted, were supported on three steel plugs set into the pier with good plaster of paris. The same material was run around the anchor bolts and also into the two holes 2 inches (5 cm.) in diameter and counter-sunk in the top of each pier, which receive the lugs on the bed-plates. This manner of mounting the instrument was intended to give a solid central support for the bed-plates along an east and west line and security against movement from any possible cause in a north and south direction, while expansion and contraction of the metal with reference to the marble in the piers could take place freely, since the bed-plates were free to slip on the steel plugs.

Much to my disappointment, this arrangement gave no relief whatever, there being no change, apparently, in the variation of the azimuth. But the anchor bolts set in plaster of paris were not firm, and the instrument was again dismounted. The anchor bolts were now set in Portland cement, but the cement was not run in around the lugs. After the cement had been given time to harden, the nuts on the anchor bolts were set up, the instrument mounted and adjusted, and for the time being the attempt to remove the azimuth variation was abandoned. The instrument was used during the winter in observing the comparison stars for Eros.

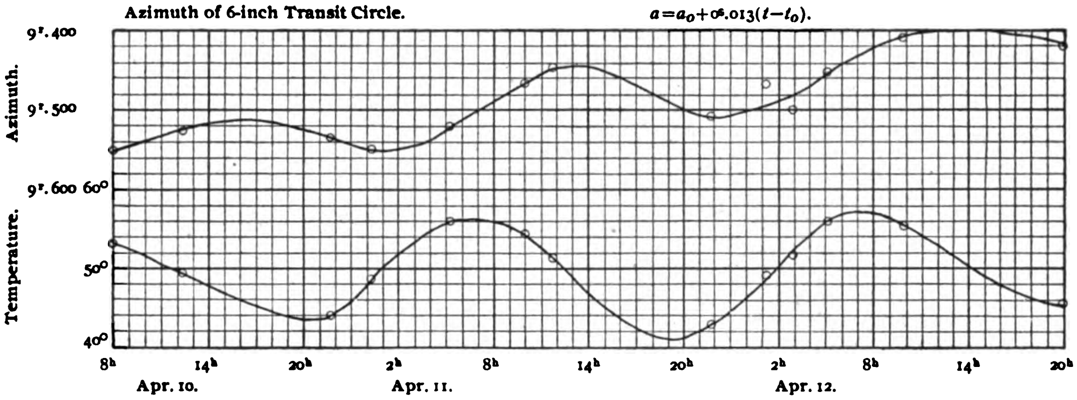
In February Mr. AMBROSE SWASEY, of the firm of WARNER & SWASEY, the makers of the instrument, visited the Observatory and suggested that temporary pivot bearers of cast iron could be substituted for the cast-steel microscope bearers without great expense, with a view to determining whether the fault might be in imperfect annealing of the latter. The suggestion of Mr. SWASEY was adopted, and the temporary bearers were made by his firm and put in place on March 18. A subsequent test showed the same variation as before, which proved that, barring a remarkable coincidence, the trouble could not be in the microscope bearers. The results of this test were also plotted in a curve; see fig. 2. While the problem seemed even farther than ever from solution, yet it was, on the whole, encouraging to find that the complex and costly castings were probably not at fault. The patterns from which they were cast had been destroyed by fire, and to replace them would have cost much time and trouble, as well as expense.

2.—*Temporary Bearers, 3-point Support of Bed-plates. March 18–20, 1901.*

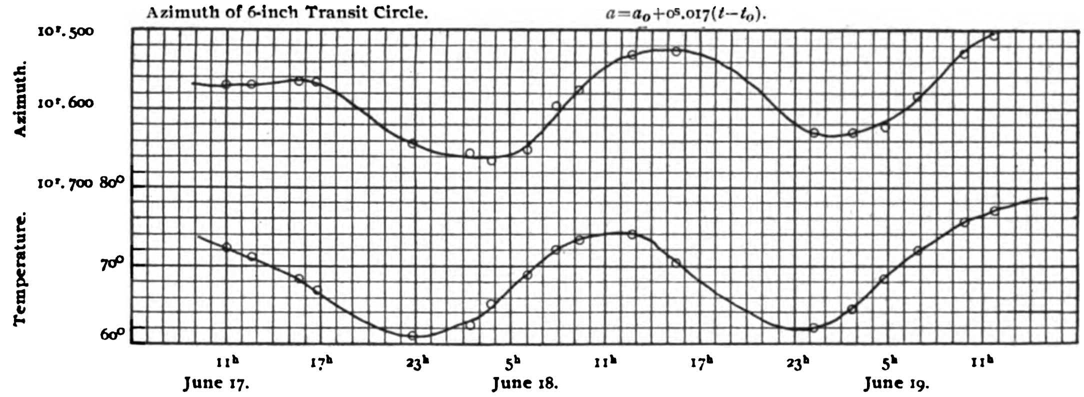


It then occurred to me that the foundation plates could be tested by turning each around horizontally 180 degrees on its own pier. The plates are symmetrical with reference to their centers, making it possible to do this. It is evident that if the defect was in the plates the azimuth variation would be changed in sign. As will be seen later, this seems to be exactly what happened when the experiment was tried. On turning the plates on April 10 and testing for change of azimuth our first positive result was secured. The results of this test are shown in fig. 3, page D XXXI. The azimuth change per degree of temperature was reduced to less than half of what it was before, but was not changed in sign. The delay in response to changes of temperature was apparently much greater than before. It was now evident that a part of the difficulty was in the plates. New cast-iron bed-plates were ordered, but were not ready until June 17, when a test with the new bed-plates in place showed an azimuth variation larger than that found with the old bed-plates reversed, but only about two-thirds of that found with the old bed-plates in their usual position; see fig. 4. With the new bed-plates the drag or delay in response to temperature changes was much increased, amounting to about three and a half hours. With the old bed-plates in their usual position the delay, while not well determined, was apparently small, perhaps not more than half an hour, and in the reversed position of the old bed-plates the drag was greater, as stated above. The remaining cause of the trouble now seemed to be definitely located in the marble piers or else in the manner in which they were supported on their foundations.

3.—*Bed-plates Reversed. April 10-12, 1901.*



4.—*New Cast-iron Bed-plates. June 17-19, 1901.*

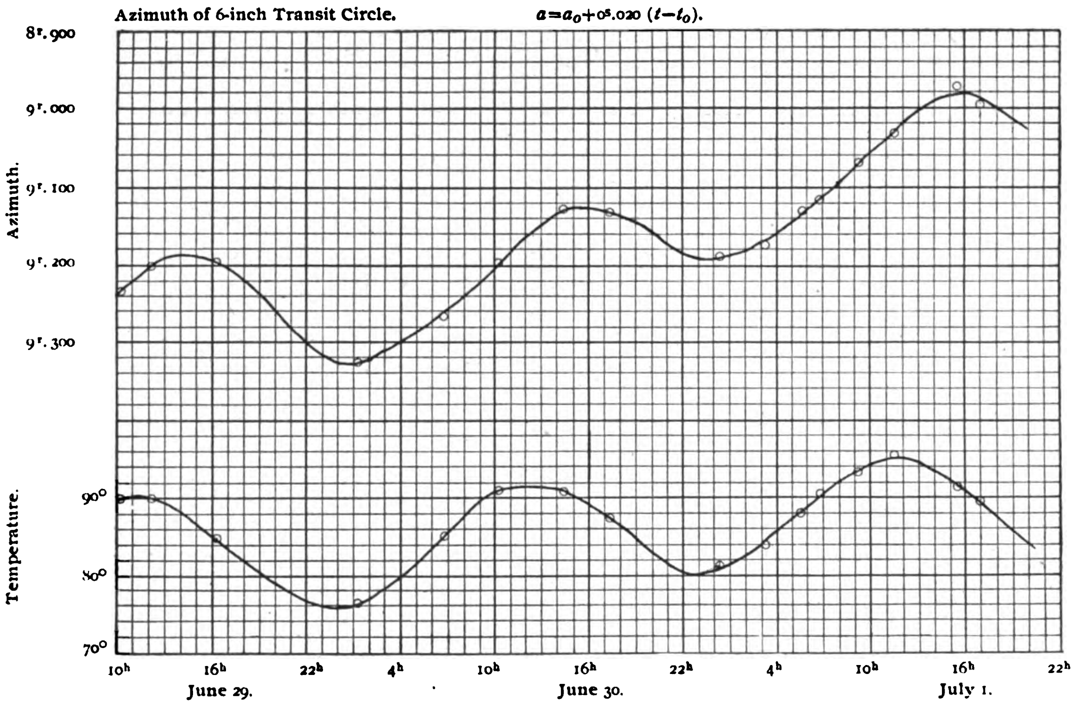


The foundations themselves, consisting of a mass of concrete, with granite capstone 8.4 feet (2.6 m.) high, 12 by 14 feet (3.7 by 4.3 m.) at base, and 6 by 12 feet (1.8 by 3.7 m.) at top, in the form of a frustrum of a pyramid with its greatest horizontal dimension east and west, seemed to be free from suspicion. While the manner in which the piers were supported on their foundations was not above criticism, consisting of a three-point support on pieces of cardboard 12 inches (30 cm.) square, it would not be expected to give rise to the peculiar azimuth variation due to temperature.

However, in order to be more sure, another test was made with the new bed-plates and temporary pivot bearers, the results of which are shown in fig. 5. With this arrangement the instrument was entirely reconstructed from the piers to the pivots, excepting that the old adjusting screws in level and azimuth were used. This test gave the same result as the last, confirming the previous conclusion that the temporary pivot bearers of cast iron and the cast-steel microscope bearers were neither of them at fault or else both had the same defect, the probability of the latter being regarded as very small.

I then recommended to the Superintendent of the Observatory that the marble piers be removed and brick piers built. The Superintendent preferred, however, to try cementing the piers to their foundations, and this was done by running liquid Portland cement under and around the bases of the piers. I was absent from the Observatory during the progress of this work, and on my return, on July 11, just after it was finished, it was reported to me that the west pier had been found loose on its foundation. Instead of resting properly on three points it seems to have rested principally on some point not very far from the center of the base, so that a man pushing or striking against the top could produce enough motion to disturb water in a glass on top of the pier. This is a statement of the facts substantially as given me by Mr. WILLIAM M. GORMAN, foreman in charge of the work, and Assistant Astronomer G. A. HILL, who witnessed the phenomena as described. Another test for azimuth variation, see fig. 6, page D XXXIII, made when the cement was supposed to be thoroughly set, showed no appreciable change in the variation of

5.—*New Bed-plates. Temporary Bearers. June 29–July 1, 1901.*

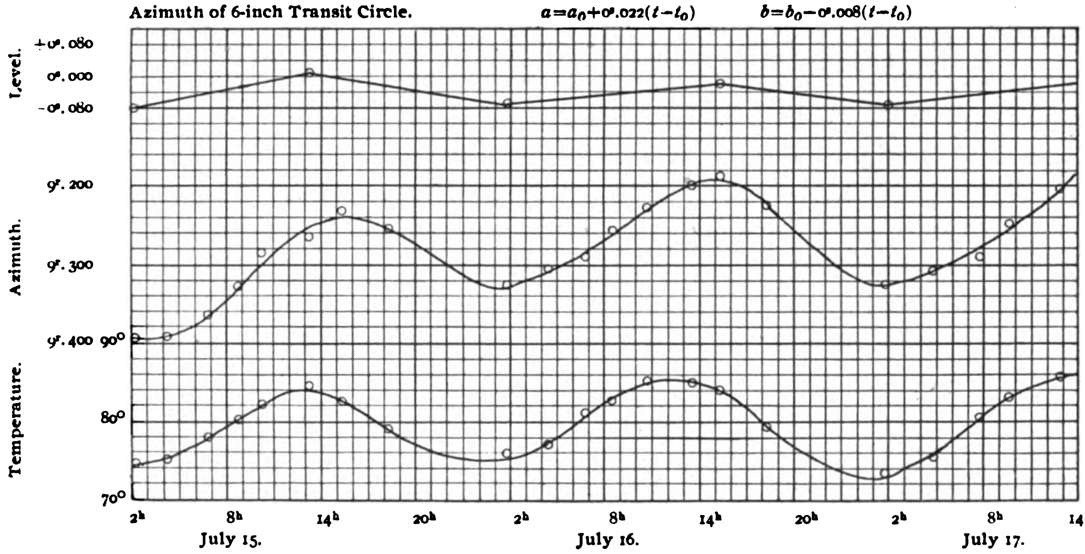


azimuth with temperature except that the amount of change per degree of temperature was somewhat larger. The level constant which had before that time showed no change with temperature was found to have a well-marked variation with the diurnal temperature change of $0^s.008$ per degree Fahrenheit; see fig. 6.

On July 19 the Superintendent decided to remove the marble piers and to construct piers of brick laid in cement. The work was completed on July 26, and the instrument was mounted temporarily on the new piers on July 29. Each bed-plate was set up on three pieces of sheet lead without holding down bolts. A test completed on July 31 showed that the azimuth variation with temperature had disappeared, and another test, made October 5–8, 1901, after the instrument had been permanently mounted and adjusted, showed a highly satisfactory degree of stability in both azimuth and level; see figs. 7 and 8, page D xxxiv.

After the complete solution of this problem the facts of the case seem to be as follows: The changes of temperature in producing variation of the azimuth acted in two ways.

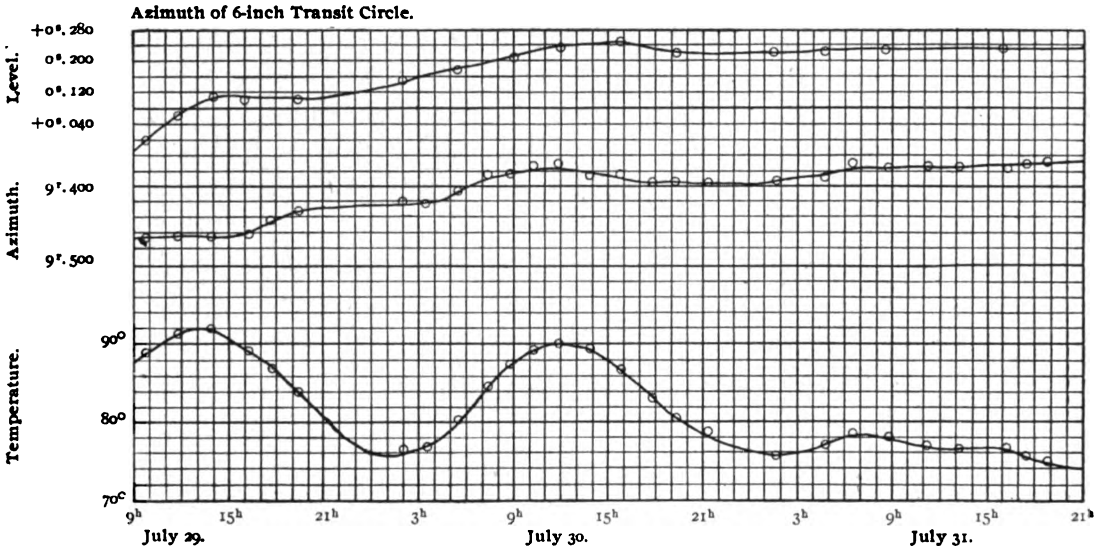
6.—*Piers Cemented to Foundations. Temporary Bearers. July 14–17, 1901.*



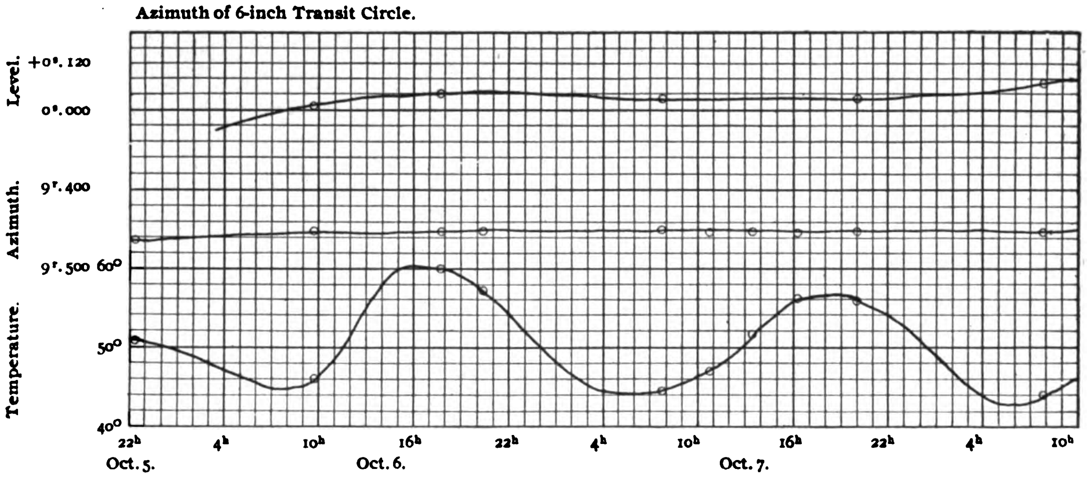
The principal cause was the defective support of the west pier on its foundation, in that most of the weight of the pier seems to have rested on a point somewhere near the center, producing a strain on the marble at that point which under changes of temperature gave a rocking motion to the pier. An examination of the bases of the piers after their removal shows that while the base of the east pier had been carefully hollowed out in order to prevent any bearing near the center, this precaution had been either neglected or imperfectly carried out in the case of the west pier. The corners of the pieces of cardboard, about a foot square, on which the marble piers were supported, penetrated too near to the center of the base. This rocking motion of the pier being very small, would affect the azimuth, but would have no appreciable effect upon the level, which corresponds with the observed facts.

An independent cause of variation of azimuth existed in the cast-steel bed-plates, which had perhaps been imperfectly annealed. In their usual position their effect was to increase the total amount of azimuth variation and at the same time, on account of their quick response to changes of temperature, to obscure the drag of three or four hours, which manifested itself in the case of the piers. The effect of the bed-plates in their reversed position, described above, was in the opposite direction, tending to diminish the total amount of azimuth variation and emphasizing the drag. The effect of change of temperature on the bed-plates seems to have been such as to give the microscope bearers, one or both of them, a rocking motion, such that the azimuth of the instrument was changed without appreciably affecting the level.

7.—*Instrument Temporarily Mounted on Brick Piers. July 29–31, 1901.*



8.—*Instrument Permanently Mounted on Brick Piers. October 5–8, 1901.*



It is quite possible that the azimuth variation, in so far as it was due to the piers, might have been removed by taking out or lifting up the marble piers and resetting them properly on their foundations. But the cost of doing this would have been perhaps as great or greater than that of building the brick piers, which, in the opinion of the writer, will probably serve the purpose better than monoliths of marble or granite, the use of which is not in conformity with the best modern practice.

The instrument was permanently mounted on the brick piers on September 27, the bed-plates and anchor bolts having both been set in Portland cement. During three weeks, observations of the azimuth and level constants have been frequently made, with changes of temperature of more than 20° F.; but the small changes in azimuth and level which have been detected seem to have no relation to changes of temperature.

STATEMENT CONCERNING AN EXTRAORDINARY CHANGE IN THE AZIMUTH AND LEVEL CONSTANTS ON JULY 6, 1900.

The afternoon of that day was very hot and sultry, and the sky being clear the north vertical shutters of the observing room were left open for ventilation, as we expected to observe that night. A thunderstorm with a north wind came up very suddenly about 7.30 p. m., and before the shutters could be closed a considerable amount of rain came in on the floor of the observing room. The sky cleared about 8.15 p. m. and observations were commenced. It was soon noticed that both the azimuth and level constants were changing rapidly. At the end of the night's work the azimuth had changed $1^s.70$ and the level $0^s.46$ during two hours and forty-five minutes. On the following morning they had changed still more in the same direction, and the total change in thirteen hours amounted to $3^s.25$ in azimuth and to $0^s.88$ in level. The setting microscope was on the west side and was not thrown out of adjustment. On adjusting the instrument in level and azimuth the east microscope bearer only was moved and everything came back into place as before, and it was concluded that the change in the constants of the instrument was entirely due to motion of the eastern wye.

I was unable, however, at the time to understand the cause of this extraordinary phenomenon, which seemed to have no connection with the azimuth variation due to temperature. The fact that the piers were supported on pieces of cardboard was then unknown to me. But it now seems practically certain that some of the rain water which came in on the floor during the shower ran down the north side of the east pier and moistened the piece of cardboard that supported the pier on that side. This, through expansion of the cardboard with the moisture, would have moved the east pivot south and raised it, and the motion in level would have been to the motion in azimuth in the ratio of 1:4.0. The motions as observed were the same in direction and in the ratio of 1:3.7. This seems to confirm the above hypothesis as to the cause of the phenomenon.

METHODS OF OBSERVING IN RIGHT ASCENSION AND DECLINATION.

An attempt has been made to render the methods of observing as convenient and as simple as is consistent with the greatest possible accuracy. Bright-field illumination and Eyepiece III, power 140 diameters, have always been used. Stars of the ninth magnitude on the Durchmusterung scale are easily observed with sky of average clearness. The seeing is marked on a scale of five, one being the poorest and five the best, as has long been the practice here. The observing room is kept well ventilated.

The barometer is usually read once each hour and the thermometer once each half hour for the computation of refraction. The instrumental constants are completely determined on each night on which observations are made and are redetermined as frequently as is considered necessary. Whenever instrumental observations are being made, the temperature of the air in the observing room is read from a thermometer, suspended over the instrument.

All transits are observed across the nine central threads of the reticule, which are symmetrically disposed with reference to the middle thread, and between the two fixed horizontal threads, 9″ apart. Transits are observed on the chronograph, except those of stars within eight or ten degrees of the pole, which are observed by eye and ear, using for the purpose the second beats of the clock transmitted to a sounder in the observing room.

The pointings in declination are made by moving the telescope by means of the tangent screw so as to cause the star to bisect the space between the two fixed horizontal threads. The zenith distance micrometer has not been used in this work.

In making ordinary observations of stars the observer, when he has an assistant, takes his place at the telescope about forty-five seconds before the star is due on the meridian, brings the star between the double threads, and adjusts the illumination of the field according to the magnitude of the star. He sets on the star in declination as it crosses Thread II of the reticule and notifies the assistant, who reads and records the microscopes on Circle A while the transits across nine threads are being observed. For stars north of the zenith the first bisection is usually made on Thread III instead of Thread II. The second pointing on the star in declination is made on Thread V; the microscopes on Circle B are read by the observer and are recorded by the assistant. Excepting at high declinations, stars are easily observed two minutes apart in this way, and it is possible to observe completely two stars south of the zenith which differ $1^m\ 30^s$ in right ascension. When the observer has no assistant, only one bisection in declination can be made, except in case of close circumpolar stars.

When the newly divided circles, the new microscope objectives, and the improved illumination of the circles are brought into use, the precision of the microscope readings will probably be greatly increased. It may then be unnecessary to read four microscopes for each bisection of a star in the field of the telescope, and the above method of making observations may be modified with advantage.

The minutes of all circle readings were always taken from the microscopes E, F, G, and H on the west side. In reading microscopes it was our practice to read on the division nearest the middle tooth of the comb scale.

The observers are designated as follows:

U.=MILTON UPDEGRAFF.	L.=F. B. LITTELL.
La.=G. K. LAWTON.	Hd.=J. C. HAMMOND.

METHODS OF REDUCTION IN RIGHT ASCENSION AND DECLINATION.

The observations in right ascension have been reduced by BESSEL'S formula, which is,

$$\alpha = T + \varDelta T + m + n \tan \delta + c_0' \sec \delta,$$

in which c_0' is the collimation constant plus the correction for diurnal aberration, $-0^s.016$. The quantity n has been computed from the observed values of a and b by the formula,

$$n = b \sin \varphi - a \cos \varphi.$$

On account of the large variation with temperature of the azimuth constant, it has frequently been necessary to interpolate the value of n for each star. The values of $\Delta T + m$ have also been interpolated when necessary.

In reducing observations of circumpolar stars for the azimuth of the meridian mark, MAYER'S formula,

$$\alpha = T + \Delta T + a \frac{\sin(\varphi - \delta)}{\cos \delta} + b \frac{\cos(\varphi - \delta)}{\cos \delta} + \frac{c_0'}{\cos \delta},$$

has been used.

The chronograph sheets have usually been read by Mr. LITTELL or by Mr. HAMMOND. The means of the transits across the threads of the reticule have been taken in such a way as to detect mistakes in reading the sheets.

The observations in declination have been corrected for inclination of thread and reduction to the meridian, except when the bisections were made on the meridian. In computing the refractions the Pulkowa refraction tables, adapted to the metric system, have been used. The character of the work done thus far does not require that corrections be applied to these tables to adapt them to conditions at Washington. The microscope readings have been scrutinized for the detection of errors.

The supplements of the actual readings of microscopes A, B, C, and D, that is, the readings subtracted from 60, have been used in the computations. For convenience, 1″ has been added to the correction for reduction to the meridian, and has been subtracted from the equator-point correction.

The numerical work has in all cases been checked. The computations in right ascension have been in part carried out to three places of decimals and in declination to two. No corrections for error of runs of the microscopes have hitherto been applied, for reasons given on page D XXI.

The interpolation of clock corrections, equator points, and instrumental constants has in many cases been effected by plotting the observed values with the time as argument. The plotted curves are not given here, but it is intended to print with the observations all data which have been treated in this way.

RESULTS OF OBSERVATIONS FOR PERSONAL EQUATION.

Effect of position of the observer.—During February and March, 1901, eight stars which culminate near the zenith were observed four times each with the head north, and four times with the head south. The observations in the two positions were made on alternate nights, all the stars being observed head north on one night and head south on the following night. It has since occurred to me that it would have been a better plan to observe half of the stars head north and the other half head south on each night. The means of 29 separate results in the sense head north minus head south are,

In right ascension	$+0^s.028 \pm 0^s.007$
In declination	$+0''.41 \pm 0''.11$

The observations both in right ascension and declination were referred to zero stars near the equator, which were observed facing south, that is, head north. The above differences are therefore to be regarded as corrections to be applied to results in right ascension and declination, observed head south which are referred to zero stars observed head north. They are double the errors of personal equation by which each observation is affected.

The separate results are shown in the tables below. They are less accordant than they should be, and there are reasons for believing that these differences may be due to other causes than change of position of the observer. The defective illumination of the field, see page D VIII, is perhaps a source of error of this kind.

Differences in Right Ascension.

[Head North minus Head South.]

Head North. Head South.	Feb. 23 Feb. 25	Feb. 26 Feb. 28	Mar. 2 Mar. 5	Mar. 6 Mar. 7	Mean.
	s	s	s	s	s
58 Ursæ Majoris	+0.02	+0.03	+0.11	−0.06	+0.025
Groombridge 1830	−0.01	....	+0.07	+0.01	+0.023
2 Canum Venaticorum	−0.01	−0.03	+0.05	+0.03	+0.010
9 Canum Venaticorum	+0.04	−0.01	0.00	−0.02	+0.002
α Canum Venaticorum	−0.03	+0.02	+0.18	+0.10	+0.068
14 Canum Venaticorum	−0.09	+0.05	+0.01	+0.04	+0.002
20 Canum Venaticorum	−0.00	....	+0.12	+0.08	+0.066
25 Canum Venaticorum	+0.02	+0.05	+0.04	....	+0.037
Mean	−0.008	+0.018	+0.072	+0.026	+0.029

Differences in Declination.

[Head North minus Head South.]

Circle A.

Head North. Head South.	Feb. 23 Feb. 25	Feb. 26 Feb. 28	Mar. 2 Mar. 5	Mar. 6 Mar. 7	Mean.
	"	"	"	"	"
58 Ursæ Majoris	+1.7	−0.8	+0.1	−0.7	+0.08
Groombridge 1830	+0.5	...	+1.4	+1.9	+1.27
2 Canum Venaticorum	+0.2	+1.6	+2.2	+0.2	+1.05
9 Canum Venaticorum	0.0	+0.5	+1.4	+1.4	+0.82
α Canum Venaticorum	−0.7	+0.6	+0.4	+1.7	+0.50
14 Canum Venaticorum	−0.6	+1.5	+0.6	+0.6	+0.52
20 Canum Venaticorum	−1.2	...	+1.4	+0.7	+0.30
25 Canum Venaticorum	−0.7	+1.5	−0.4	...	+0.13
Mean	−0.10	+0.80	+0.89	+0.83	+0.58

Differences in Declination—Continued.

[Head North minus Head South.]

Circle B.

Head North. Head South.	Feb. 23 Feb. 25	Feb. 26 Feb. 28	Mar. 2 Mar. 5	Mar. 6 Mar. 7	Mean.
	″	″	″	″	″
58 Ursæ Majoris	+1.0	−2.5	−0.3	+0.1	−0.65
Groombridge 1830	−0.2	...	+0.5	...	+0.15
2 Canum Venaticorum	−0.9	+0.7	+0.3	−0.5	−0.10
9 Canum Venaticorum	+0.6	+0.7	+0.7	+0.2	+0.55
α Canum Venaticorum	−0.9	+2.2	−0.1	+0.5	+0.42
14 Canum Venaticorum	0.0	+1.1	+0.6	+0.2	+0.48
20 Canum Venaticorum	+1.9	...	+0.3	+1.0	+1.07
25 Canum Venaticorum	−1.3	+0.5	+0.8	...	0.00
Mean	+0.02	+0.37	+0.34	+0.25	+0.24

Effect of star magnitudes.—Two series of observations, with wire screens, to determine the effect of star magnitudes on observations in right ascension were made by myself, one in October and November, 1900, and the other in February, 1901, comprising in all about 320 observations. Another series of 85 observations was made on four nights in November and December, 1900, by Mr. LITTELL. The three screens used are made of fine brass wire, and they differ somewhat in the effect produced in diminishing the light of the stars. They are numbered 5, 6, and 7. For one screen, No. 5 was always used, and for two screens, Nos. 5 and 6. Two screens and sometimes all three were used for the brighter stars. The screens were held before the object-glass by an assistant. Care was taken when two or more screens were used to place them with reference to each other so that their planes were parallel, but with the wires at a considerable angle with each other. This precaution was necessary in order to produce more certain and uniform effects.

The thread intervals of the spider-line reticule were very accurately determined, both by eye and ear observations and by the chronographic method. These two determinations agree satisfactorily and were made in part simultaneously with the first series of screen observations. Furthermore, measures with the right ascension micrometer made on the reticule, both before and after the screen observations, show that only very small changes, if any, had taken place in the thread intervals. In order, however, to eliminate any small errors in the adopted values of the thread intervals, about half of the screen observations were made using the screens for the middle tally of five threads called c, and the remaining observations were made using the screens for the two side tallies of three threads each, called respectively b and d. A systematic difference appears between the results of observations made in these two ways which can not possibly be attributed to error in the adopted thread intervals.

While these observations were in progress, the apparatus originally provided for illumination, see page D VIII, was in use, and it is highly probable that this discrepancy was caused by the defective illumination of the field, although great pains were taken to adjust the mirrors so as to reflect the light properly. In ordinary observations the brightness of the field is adjusted so as to correspond with the brightness of the star being observed, and the same practice was followed in making the screen observations. When the screens were put on or taken off, the illumination of the field was always adjusted by a turn of the adjusting handle. That the above is not merely a personal error is shown by the fact that it appears in the results of Mr. LITTELL'S observations as well as my own, as will be seen in the table below.

Summary of Results of Screen Observations.

[Faint minus Bright.]

Observer.	One Screen.			Two Screens.			Three Screens.		
	On c.	On b and d.	Diff.	On c.	On b and d.	Diff.	On c.	On b and d.	Diff.
	s	s	s	s	s	s	s	s	s
U.	-0.005	+0.026	+0.031	+0.006	+0.048	+0.042	+0.003	+0.052	+0.049
L.	-0.008	+0.052	+0.060	+0.019	+0.083	+0.064	.....	.....	.....

In making the observations, estimates of the magnitudes of the stars, with and without the screens, were made as nearly as possible on the Durchmusterung scale. The mean results for effect of screens on the magnitudes of the stars and on the personal equations of the observers are given in the table below.

Effect of Screens.

No. of Screen.	On Star Magnitudes.		On Personal Equation, Faint minus Bright.	
	U.	L.	U.	L.
	m	m	s	s
Screen 5	3.3	3.4	+0.010	+0.022
Screens 5 and 6	5.2	5.7	+0.027	+0.051
Screens 5, 6, and 7	7.2	...	+0.028	.....

My observations of October and November, 1900, were made when the seeing was excellent. The mean result of 66 observations with two screens, faint minus bright, is $+0^{\mathrm{s}}.022$. The observations of February, 1901, were all made with bad seeing, and the mean result from 113 observations with two screens, faint minus bright, is $+0^{\mathrm{s}}.032$. It is perhaps to be expected that difference of magnitude would have greater effect on personal equation when the star disk is blurred or unsteady, but these results hardly justify any conclusions on this point.

The probable error of a single observation has been found to be about $0^{\mathrm{s}}.030$.

The stars observed for this purpose were all south of the zenith, and no attempt has been made to determine the personal equation due to star magnitudes at different declinations.

While these results are believed to be real and fairly accurate, yet they have not been used to correct any of the observations here published.

The individual results of observations with screens follow.

Results of Observations with Wire Screens for Determination of Personal Equation due to Star Magnitudes.

No.	Date, Observer, and Object.	Observed Magnitudes. With Screens	Observed Magnitudes. Without Screens	No. of Screens.	Faint minus Bright.
	1900 October 20, U.	CLAMP WEST.			
					s
1	28 Aquarii	8.5	5.7	1	+0.01
2	θ Aquarii	7.8	4.1	1	−0.04
3	γ Aquarii	8.0	3.8	1	+0.02
4	σ Aquarii	7.8	4.0	1	+0.01
5	η Aquarii	8.2	4.2	1	0.00
6	10 Lacertæ	8.5	4.9	1	−0.06
7	η Pegasi	8.5	3.2	2	+0.10
8	λ Pegasi	9.0	3.8	2	−0.02
9	μ Pegasi	8.8	4.0	2	−0.01
10	δ Aquarii	9.0	3.8	2	0.00
11	α Piscis Australis	9.0	1.0	3	−0.04
12	α Pegasi	8.0	2.8	2	+0.03
13	c^2 Aquarii	9.0	4.0	2	+0.05
14	φ Aquarii	9.5	4.2	2	−0.02
15	γ Piscium	9.1	4.0	2	−0.06
16	τ Pegasi	8.1	5.1	1	0.00
17	κ Piscium	8.1	5.4	1	+0.05
18	70 Pegasi	8.0	5.0	1	+0.01
19	14 Piscium	9.0	6.0	1	−0.01
20	ι Piscium	7.75	5.0	1	−0.01
21	λ Piscium	8.25	4.0	1	+0.02
22	19 Piscium	8.0	5.75	1	−0.01
23	φ Pegasi	8.0	5.5	1	+0.02
	October 24, U.	CLAMP WEST.			
1	α Aquarii	8.5	3.2	2	+0.08
2	θ Pegasi	9.0	3.7	2	−0.01
3	θ Aquarii	7.8	5.0	1	+0.06
4	π Aquarii	8.5	4.5	1	−0.02
5	σ Aquarii	8.7	5.0	1	+0.01
6	η Aquarii	8.2	4.7	1	+0.03
7	κ Aquarii	8.7	4.5	1	+0.01
8	ζ Pegasi	9.1	3.0	2	+0.03
9	λ Pegasi	9.2	4.0	2	−0.02
10	α Piscis Australis	9.2	1.0	3	+0.11
11	β Pegasi	7.9	2.8	2	+0.02
12	α Pegasi	8.8	3.0	2	+0.02
13	γ Piscium	9.2	3.7	2	+0.01
14	τ Pegasi	8.0	4.5	1	0.00
15	υ Pegasi	8.0	4.5	1	−0.01
16	θ Piscium	7.9	4.5	1	−0.01
17	72 Pegasi	8.0	5.0	1	−0.03
18	ι Piscium	7.8	5.0	1	+0.04
19	λ Piscium	7.7	4.7	1	+0.04
20	19 Piscium	8.2	5.0	1	+0.02
21	φ Pegasi	8.5	5.7	1	−0.07
22	ψ Pegasi	8.7	5.0	1	+0.05
23	ω Piscium	9.3	4.0	2	0.00
24	30 Piscium	7.8	5.0	1	+0.03
25	α Andromedæ*	8.2	2.5	2	+0.01
26	γ Pegasi	8.5	3.0	2	−0.02
	October 27, U.	CLAMP WEST.			
1	1 Pegasi	8.1	4.0	1	−0.07
2	69 Cygni	9.2	6.5	1	0.00
3	β Aquarii	9.2	3.7	2	+0.07
4	ε Pegasi	8.0	3.0	2	+0.02
5	δ Capricorni	7.2	3.8	1	+0.05
6	α Aquarii	9.0	3.6	2	−0.02
7	θ Pegasi	9.5	4.0	2	+0.06
	1900 October 27, U.	CLAMP WEST.			
					s
8	γ Aquarii	8.0	4.2	1	0.00
9	η Aquarii	9.5	4.5	2	+0.09
10	α Piscis Australis	8.7	2.3	2	−0.06
11	52 Pegasi	9.2	6.3	1	+0.07
12	β Pegasi	8.2	2.0	2	+0.01
13	55 Pegasi	9.0	6.0	1	+0.04
14	59 Pegasi	9.0	6.0	1	−0.10
15	κ Piscium	9.0	6.0	1	+0.04
16	70 Pegasi	8.9	5.7	1	+0.05
17	72 Pegasi	8.8	5.5	1	+0.02
18	ι Piscium	8.3	5.0	1	−0.06
19	λ Piscium	8.8	5.5	1	+0.04
20	19 Piscium	9.3	6.0	1	+0.09
21	φ Pegasi	8.9	6.0	1	+0.01
22	ψ Pegasi	9.0	5.7	1	−0.02
23	ω Piscium	8.2	4.9	1	+0.01
24	30 Piscium	8.8	5.5	1	+0.03
25	33 Piscium	8.8	5.5	1	+0.06
26	α Andromedæ	8.8	2.2	2	−0.03
27	γ Pegasi	6.0	3.0	2	+0.03
	October 30, U.	CLAMP EAST.			
1	16 Pegasi	8.2	5.0	1	−0.05
2	28 Aquarii	9.0	5.8	1	0.00
3	ο Aquarii	8.5	5.2	1	+0.01
4	α Aquarii	8.6	3.0	2	+0.05
5	θ Pegasi	9.1	3.5	2	−0.04
6	θ Aquarii	8.0	4.0	1	+0.04
7	ρ Aquarii	9.0	5.8	1	−0.02
8	γ Aquarii	9.2	3.5	2	+0.05
9	π Aquarii	8.6	4.7	1	+0.05
10	38 Pegasi	9.2	5.9	1	+0.04
11	η Aquarii	9.2	3.3	2	+0.06
12	κ Aquarii	8.5	5.2	1	+0.02
13	ζ Pegasi	9.0	3.1	2	+0.05
14	λ Pegasi	9.1	3.2	2	−0.02
15	μ Pegasi	8.8	3.2	2	−0.05
16	λ Aquarii	9.2	3.8	2	+0.04
17	α Piscis Australis	7.8	2.0	2	−0.07
18	52 Pegasi	9.0	5.9	1	+0.02
19	α Pegasi†	8.5	2.7	2	−0.02
20	55 Pegasi†	8.8	5.5	1	−0.01
21	59 Pegasi	9.0	5.8	1	+0.02
22	γ Piscium	7.5	4.0	1	−0.02
	November 21, U.	CLAMP WEST.			
1	δ Andromedæ	8.5	3.0	2	+0.13
2	β Ceti	8.3	1.0	2	+0.01
3	ζ Andromedæ	9.1	4.5	2	+0.08
4	μ Andromedæ	9.2	4.0	2	+0.06
5	ε Piscium	9.2	4.5	2	+0.09
6	72 Piscium	9.0	6.0	1	+0.01
7	β Andromedæ	7.8	1.8	2	+0.11
8	τ Piscium	8.0	5.0	1	−0.01
9	υ Piscium	8.5	4.7	1	+0.05
10	η Piscium	8.0	4.5	1	+0.04
11	ν Piscium	7.8	5.5	1	−0.03
12	ο Piscium	8.8	4.2	1	+0.03
13	α Trianguli	9.1	4.0	2	+0.03
14	α Arietis	7.9	2.0	2	+0.08

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*Through clouds. Seeing fair on this night.

†Through clouds.

Results of Observations with Wire Screens for Determination of Personal Equation due to Star Magnitudes—Continued.

No.	Date, observer, and object.	Observed Magnitudes.		No. of Screens.	Faint minus Bright.
		With Screens	Without Screens		
	1900 November 21, U.	CLAMP WEST.			s
15	β Trianguli*	9.0	3.5	2	+0.02
16	ξ^1 Ceti	8.4	5.0	1	+0.06
17	γ Trianguli	8.0	4.5	1	+0.01
18	ξ Arietis	9.3	6.0	1	+0.15
19	ξ^2 Ceti	9.0	5.8	1	+0.04
20	δ Ceti	8.5	5.0	1	+0.11
21	γ Ceti	9.2	3.8	2	+0.09
22	μ Ceti	8.3	4.8	1	+0.06
23	39 Arietis	8.5	5.0	1	+0.06
24	41 Arietis	9.1	3.8	2	+0.09
25	σ Arietis	9.0	6.0	1	0.00
26	λ Ceti	8.5	5.5	1	−0.01
27	α Ceti	9.0	3.0	2	0.00
	November 22, L.	CLAMP WEST.			
1	γ Piscium	9.0	3.8	2	+0.11
2	τ Pegasi	9.0	4.0	2	+0.06
3	υ Pegasi	8.0	5.0	1	+0.03
4	θ Piscium	7.8	4.5	1	+0.02
5	14 Piscium	9.2	6.0	1	+0.07
6	ι Piscium	8.0	4.3	1	+0.04
7	λ Piscium	8.5	5.0	1	+0.02
8	19 Piscium	8.5	5.2	1	0.00
9	φ Pegasi	8.5	5.0	1	+0.06
10	ω Piscium	8.0	4.5	1	+0.08
11	30 Piscium	8.5	5.0	1	+0.06
12	33 Piscium	8.4	5.0	1	+0.06
13	α Andromedæ	7.8	2.0	2	+0.10
14	γ Pegasi	9.0	3.2	2	+0.08
15	ι Ceti	9.5	4.2	2	−0.04
16	π Andromedæ	8.0	4.5	1	+0.03
17	δ Andromedæ	9.6	3.0	2	+0.11
18	β Ceti†	9.5	2.8	2	+0.14
19	β Andromedæ	9.0	2.5	2	+0.05
	November 27, U.	CLAMP WEST.			
1	ψ Pegasi	9.1	5.0	2	+0.02
2	ω Piscium	9.1	4.8	2	+0.01
3	30 Piscium	9.5	4.5	2	+0.03
4	33 Piscium	8.8	4.7	1	−0.01
5	α Andromedæ	7.5	2.5	2	−0.03
6	γ Pegasi	8.5	4.0	2	−0.01
7	σ Andromedæ	9.0	4.8	1	−0.05
8	ι Ceti	9.1	3.5	2	−0.01
9	44 Piscium	9.2	5.0	1	−0.02
10	12 Ceti	9.0	5.2	1	+0.03
11	13 Ceti	9.0	6.0	1	+0.03
12	π Andromedæ	8.1	4.7	1	−0.07
13	δ Andromedæ	8.6	3.0	2	+0.03
14	β Ceti	8.0	2.0	2	0.00
15	ζ Andromedæ	9.0	4.5	2	+0.03
16	δ Piscium	7.8	5.2	1	+0.05
17	20 Ceti	9.1	6.0	1	−0.02
18	μ Andromedæ	9.1	3.8	2	+0.04
19	β Andromedæ	7.8	2.3	2	+0.02
20	χ Piscium	8.2	5.3	1	−0.02
21	ν Piscium	8.0	5.3	1	−0.03
22	τ Ceti	9.1	3.7	2	+0.06
23	χ Ceti	8.5	5.0	1	0.00
24	α Trianguli	9.0	3.7	2	+0.04
25	β Arietis	8.4	3.0	2	0.00
	1900 November 27, U.	CLAMP WEST.			s
26	λ Arietis	8.4	4.8	1	0.00
27	υ Ceti	...	...	2	−0.02
28	α Arietis	8.2	2.0	2	0.00
29	β Trianguli	8.5	3.5	2	+0.06
30	15 Arietis	9.0	5.8	1	−0.03
	November 30, L.	CLAMP WEST.			
1	55 Pegasi ‡	8.0	4.5	1	+0.03
2	c^2 Aquarii	7.8	4.0	1	−0.01
3	φ Aquarii	8.0	4.3	1	+0.02
4	γ Piscium	9.5	3.5	2	+0.02
5	τ Pegasi	8.0	4.2	1	0.00
6	b^1 Aquarii	7.8	4.0	1	−0.07
7	υ Pegasi	7.8	4.5	1	0.00
8	θ Piscium	8.0	4.6	1	+0.02
9	ι Piscium	7.8	4.5	1	+0.03
10	λ Piscium	8.5	4.6	1	−0.02
11	19 Piscium	8.5	5.0	1	−0.04
12	ψ Pegasi	8.2	4.5	1	+0.02
13	ω Piscium	9.5	3.5	2	+0.01
14	30 Piscium	8.0	4.7	1	+0.05
15	33 Piscium	8.2	4.5	1	+0.05
16	α Andromedæ	8.0	2.0	2	+0.15
17	γ Pegasi	9.0	3.5	2	−0.01
18	ι Ceti	9.6	3.5	2	−0.02
19	12 Ceti	9.2	6.0	1	+0.03
20	13 Ceti	8.5	5.0	1	−0.07
21	π Andromedæ	9.6	4.0	2	+0.05
22	δ Andromedæ	9.3	3.5	2	−0.02
23	β Ceti	8.5	2.2	2	+0.06
24	ζ Andromedæ	9.6	4.2	2	+0.11
25	δ Piscium	8.0	4.4	1	0.00
26	μ Andromedæ	9.4	3.8	2	+0.01
27	β Andromedæ	8.5	2.5	2	−0.11
	December 5, L.	CLAMP WEST.			
1	72 Pegasi	8.0	4.5	1	0.00
2	ι Piscium	9.6	4.5	2	+0.06
3	λ Piscium	8.3	5.0	1	+0.07
4	19 Piscium	8.5	5.0	1	+0.12
5	ψ Pegasi	8.5	5.0	1	0.00
6	ω Piscium	9.6	4.0	2	+0.07
7	30 Piscium	8.0	4.5	1	+0.08
8	ι Ceti	9.6	3.8	2	+0.14
9	β Andromedæ	8.0	2.5	2	+0.04
10	37 Ceti	8.5	5.0	1	+0.08
11	ν Piscium	8.5	5.0	1	+0.02
12	ο Piscium	8.0	4.7	1	+0.04
13	χ Ceti	8.5	5.0	1	+0.02
14	ζ Ceti	9.7	4.0	2	+0.14
15	β Arietis	8.0	2.3	2	+0.04
16	α Arietis	8.0	2.0	2	+0.03
17	β Trianguli	9.2	3.8	2	+0.09
18	ξ^1 Ceti	8.0	4.5	1	+0.05
	December 6, L.	CLAMP WEST.			
1	72 Pegasi	8.3	4.8	1	+0.03
2	ι Piscium	9.6	4.8	2	−0.03
3	λ Piscium	8.0	4.5	1	−0.06
4	19 Piscium	8.2	5.0	1	+0.05

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* Observation poor.   † Diffuse; poor observation.   ‡ Observation hurried.

Results of Observations with Wire Screens for Determination of Personal Equation due to Star Magnitudes—Continued.

No.	DATE, OBSERVER, AND OBJECT.	Observed Magnitudes.		No. of Screens.	Faint minus Bright.
		With Screens	Without Screens		
	1900 December 6, L.	CLAMP WEST.			s
5	φ Pegasi	8.5	5.0	1	−0.02
6	ψ Pegasi	9.6	4.8	2	+0.02
7	ω Piscium	9.2	3.5	2	+0.04
8	30 Piscium	7.8	4.2	1	+0.01
9	33 Piscium	7.8	4.5	1	−0.03
10	α Andromedæ	7.5	2.0	2	−0.04
11	γ Pegasi	8.0	3.0	2	0.00
12	σ Andromedæ	7.8	4.2	1	+0.03
13	13 Ceti	8.5	5.0	1	+0.01
14	π Andromedæ	9.2	3.5	2	+0.08
15	ε Andromedæ	8.0	4.8	1	+0.03
16	β Ceti	7.8	2.0	2	+0.03
17	ζ Andromedæ	7.8	4.8	1	−0.02
18	δ Piscium	7.5	4.5	1	−0.06
19	μ Andromedæ	9.4	3.8	2	+0.08
20	β Andromedæ	7.5	2.0	2	+0.08
21	τ Piscium	7.5	4.5	1	−0.01
	1901 February 6,* U.	CLAMP WEST.			
1	o^1 Eridani	8.8	4.0	2	+0.08
2	μ Tauri	9.0	4.0	2	+0.11
3	γ Tauri	8.3	3.5	2	+0.02
4	δ Tauri	8.4	4.0	2	+0.06
5	68 Tauri	9.0	4.4	2	+0.09
6	ρ Tauri	7.8	4.7	1	+0.09
7	α Tauri	8.6	1.0	3	+0.04
8	53 Eridani	8.5	4.0	2	+0.05
9	τ Tauri	9.0	4.7	2	+0.06
10	μ Eridani	9.0	4.7	2	+0.10
11	π^3 Orionis	8.2	3.5	2	+0.10
12	π^4 Orionis	8.7	4.0	2	+0.03
13	11 Orionis	8.0	5.0	1	+0.03
14	β Eridani	8.3	3.7	2	+0.06
15	β Orionis	7.9	0.5	3	+0.09
16	τ Orionis	9.0	4.0	2	+0.07
17	λ Leporis	8.0	4.3	1	+0.05
18	γ Orionis	8.5	1.5	3	+0.07
19	β Leporis	8.5	2.7	2	+0.04
20	δ Orionis	8.3	2.7	2	+0.06
21	ε Orionis†	9.0	1.3	3	+0.03
22	ζ Orionis	8.1	1.5	2	+0.07
23	κ Orionis	9.0	2.5	3	+0.05
24	α Orionis	...	...	3	+0.07
	February 8,‡ U.	CLAMP WEST.			
1	o^1 Eridani †	8.5	4.0	2	−0.02
2	o^2 Eridani	9.0	4.0	2	−0.03
3	γ Tauri	8.5	3.8	2	+0.02
4	δ Tauri	8.5	4.0	2	+0.03
5	ε Tauri	8.5	3.8	2	−0.04
6	ρ Tauri	9.0	4.3	2	+0.05
7	α Tauri	8.2	1.0	3	−0.01
8	53 Eridani	8.6	4.0	2	−0.07
9	τ Tauri	8.7	4.3	2	+0.01
10	μ Eridani	8.5	3.8	2	−0.05
11	π^3 Orionis	8.3	3.7	2	−0.01
12	π^4 Orionis	8.6	4.2	2	−0.01
	1901 February 10,** U.	CLAMP WEST.			s
1	γ Tauri	8.2	4.0	2	0.00
2	δ Tauri	8.7	4.0	2	+0.03
3	ε Tauri	8.7	4.0	2	+0.09
4	ρ Tauri	9.0	4.4	2	+0.11
5	α Tauri	8.2	1.0	3	−0.09
6	53 Eridani	9.0	4.5	2	+0.01
7	τ Tauri	9.0	4.5	2	+0.04
8	μ Eridani	9.2	4.7	2	+0.05
9	π^3 Orionis	8.0	3.5	2	−0.05
10	π^4 Orionis	9.0	4.8	2	+0.04
11	π^5 Orionis	9.0	4.2	2	+0.03
12	ι Tauri	9.0	4.5	2	+0.04
13	11 Orionis	9.2	5.0	2	−0.06
14	β Eridani	8.0	3.5	2	−0.02
15	ρ Orionis	9.3	5.0	2	0.00
16	β Orionis	7.8	1.0	3	+0.02
17	τ Orionis†	9.0	4.0	2	+0.11
18	o Orionis	9.3	5.0	2	+0.05
19	γ Orionis	8.9	2.0	3	+0.07
20	β Leporis	8.8	3.5	2	+0.01
21	δ Orionis	7.8	2.5	2	+0.03
22	α Leporis	7.8	3.3	2	−0.05
23	ε Orionis	9.1	2.0	3	+0.06
24	σ Orionis	9.0	4.7	2	+0.10
25	ζ Orionis	9.2	2.0	3	+0.07
26	κ Orionis	7.6	2.0	2	+0.05
27	δ Leporis	9.0	4.0	2	+0.07
28	α Orionis	7.0	0.5	3	+0.01
29	η Leporis	9.0	4.2	2	+0.06
30	μ Orionis	9.0	4.2	2	+0.08
31	1 Geminorum	9.0	4.2	2	+0.04
32	ν Orionis	9.0	4.5	2	+0.04
33	ξ Orionis	9.0	4.5	2	+0.10
34	η Geminorum	7.9	3.0	2	+0.09
35	*k* Orionis	9.2	4.8	2	+0.07
36	μ Geminorum	8.3	3.0	2	+0.06
37	β Canis Majoris	9.1	2.0	3	+0.05
38	ν Geminorum	8.9	4.2	2	+0.03
39	γ Geminorum	9.0	2.2	3	+0.12
40	*S* Monocerotis	9.0	4.6	2	+0.07
41	ε Geminorum	9.0	2.5	2	+0.09
42	α Canis Majoris	7.0	−1.0	3	+0.02
	February 12,†† U.	CLAMP WEST.			
1	ι Tauri	9.0	4.5	2	+0.04
2	11 Orionis	9.0	4.5	2	+0.07
3	β Orionis	7.8	0.5	3	+0.08
4	τ Orionis	8.5	3.5	2	+0.15
5	o Orionis	9.5	4.7	2	+0.10
6	γ Orionis	9.0	1.5	3	+0.08
7	β Leporis	8.8	3.0	2	+0.12
8	δ Orionis	8.4	2.5	2	+0.07
9	α Leporis	8.8	3.0	2	0.00
10	ε Orionis	9.0	1.7	3	+0.09
11	σ Orionis	9.0	4.3	2	+0.07
12	δ Orionis	9.1	1.5	3	+0.06
13	κ Orionis	9.3	2.0	3	+0.01
14	δ Leporis	8.9	4.0	2	+0.09
15	α Orionis	7.8	1.0	3	+0.06

* Seeing 2–3 on this night. Stars unsteady and blurred. † Poor observation. ‡ Seeing 2–3 on this night.
** Seeing 3 on this night. †† Seeing 1–2 on this night. Stars very unsteady and blurred.

Results of Observations with Wire Screens for Determination of Personal Equation due to Star Magnitudes—Continued.

No.	DATE, OBSERVER, AND OBJECT.	Observed Magnitudes.		No. of Screens.	Faint minus Bright.
		With Screens	Without Screens		
	1901 February 12, U.	CLAMP WEST.			s
16	η Leporis	9.0	4.0	2	+0.07
17	μ Orionis	9.1	4.0	2	+0.11
18	ι Geminorum	9.0	3.7	2	+0.12
19	ν Orionis	9.1	4.2	2	+0.10
20	ξ Orionis	9.2	4.5	2	+0.06
21	η Geminorum	8.3	3.5	2	+0.05
22	*k* Orionis*	9.5	5.0	2	+0.13
23	μ Geminorum	8.4	3.0	2	+0.01
24	β Canis Majoris*	9.2	2.0	3	−0.02
25	ν Geminorum	9.0	4.3	2	−0.01
26	γ Geminorum	9.2	2.0	3	+0.03
27	*S* Monocerotis	9.2	4.7	2	+0.12
28	ε Geminorum	8.2	3.5	2	+0.06
29	α Canis Majoris	7.5	−1.5	3	+0.08
	February 15, † U.	CLAMP WEST.			
1	ρ Orionis	9.1	4.3	2	+0.02
2	β Orionis	7.5	1.0	2	+0.05
3	τ Orionis	9.0	4.0	2	−0.01
4	*o* Orionis	9.2	4.7	2	+0.07
5	γ Orionis	8.5	2.0	2	−0.03
6	β Leporis	8.5	3.0	2	−0.01
7	δ Orionis	9.1	2.5	3	−0.01
8	α Leporis	8.5	2.8	2	- 0.01
9	ε Orionis	8.1	2.0	3	+0.02
10	σ Orionis	9.0	4.0	2	−0.08
11	ζ Orionis	9.1	2.0	3	+0.06
12	κ Orionis	9.2	2.5	3	+0.03
13	δ Leporis	8.5	4.0	2	−0.05
14	α Orionis	7.5	1.0	3	−0.02
15	η Leporis	9.0	4.0	2	+0.03
16	μ Orionis	9.0	4.0	2	+0.08
17	ι Geminorum	9.0	4.5	2	−0.04
18	ν Orionis	9.2	4.5	2	−0.04
19	ξ Orionis	9.1	4.3	2	0.00
20	η Geminorum	9.2	3.0	3	+0.04
	1901 February 15, † U.	CLAMP WEST.			s
21	*k* Orionis	9.2	5.0	2	+0.06
22	μ Geminorum	9.3	3.0	2	+0.04
23	β Canis Majoris	9.0	2.0	3	−0.03
24	ν Geminorum	9.0	4.2	2	−0.03
25	γ Geminorum	9.1	2.0	3	−0.03
26	*S* Monocerotis	9.2	4.5	2	+0.01
27	ε Geminorum	9.3	3.0	3	+0.08
28	α Canis Majoris	7.5	−1.5	3	+0.04
	February 19, ‡ U.	CLAMP WEST.			
1	β Eridani	8.0	2.5	2	+0.05
2	ρ Orionis*	...	...	2	[−0.06]
3	β Orionis	8.2	0.5	3	+0.09
4	τ Orionis*	8.5	4.0	2	+0.05
5	*o* Orionis	9.0	4.3	2	+0.01
6	γ Orionis	9.0	2.0	3	+0.05
7	β Leporis*	...	...	2	[−0.04]
8	δ Orionis	8.2	3.0	2	−0.01
9	α Leporis*	8.0	2.5	2	0.00
10	ε Orionis	8.0	1.5	2	+0.04
11	σ Orionis*	9.0	4.5	2	[+0.16]
12	ζ Orionis	8.0	1.5	2	−0.06
13	κ Orionis	8.0	2.0	2	−0.11
14	δ Leporis*	9.0	4.0	2	+0.04
15	α Orionis	7.8	1.0	3	+0.06
16	η Leporis	9.0	4.0	2	+0.10
17	μ Orionis	9.0	4.3	2	+0.10
18	ι Geminorum	9.0	4.3	2	+0.08
19	ν Orionis	9.1	4.2	2	+0.07
20	ξ Orionis	9.0	4.5	2	+0.08
21	*k* Orionis	9.3	5.0	2	+0.06
22	μ Geminorum	8.5	3.5	2	+0.05
23	β Canis Majoris	8.0	2.0	3	−0.02
24	ν Geminorum	9.2	4.0	2	+0.08
25	γ Geminorum	9.0	2.0	3	+0.02

* Poor observation. † Seeing 3 on this night. ‡ Seeing 1 at beginning and 2–3 at end of night.

RESULTS OF OBSERVATIONS OF CIRCUMPOLAR STARS FOR AZIMUTH OF THE MERIDIAN MARK AND FOR LATITUDE.

Azimuth of the mark.—In making ordinary observations in right ascension the azimuth of the instrument is determined by measuring, with the right ascension micrometer, the distance of c_3, the middle thread of the reticule, from the meridian mark. The azimuth of the mark itself is determined by observations of the same circumpolar star at both upper and lower culminations. The mean result from a pair of observations made on the same day and by the same observer, one at upper and the other at lower culmination, constitutes a determination of the azimuth of the mark which is fundamental, because whatever error there may be in the adopted right ascension of the star is eliminated. It may be assumed that the personal equation of the observer is also eliminated. A pair of observations at upper and lower culmination are sometimes combined when several days apart, and are regarded as giving a fundamental determination, since small errors in the computed reductions to apparent place are in the long run nearly eliminated.

The collimation and the level of the instrument are determined at each observation, and readings on the mark are taken both before and after the observation of the star. Two time stars are also observed for clock error. The errors of the ephemeris places of the clock stars are too small to appreciably affect the results, provided that close circumpolar stars are used.

The formulæ for deducing the azimuth of the instrument from observations of stars and from measurements on the mark are derived as follows:

By MAYER'S formula for the reduction of transit observations we have, using CHAUVENET'S notation,

$$\alpha = T + \Delta T + Aa + Bb + Cc_0', \tag{1}$$

in which c_0' is the collimation of the mean of the threads, corrected for diurnal aberration, which is, for Washington, $-0^s.016$.

Putting

$$\alpha - T - Bb - Cc_0' = M,$$

we have for the circumpolar star, and for a time star, respectively,

$$aA_p = M_p - \Delta T \text{ and } aA_t = M_t - \Delta T.$$

$$a = \frac{M_t - M_p}{A_t - A_p}. \tag{2}$$

Let D_m = Distance in micrometer revolutions of mark west of c_3 as seen in the field.
A_m = Azimuth of mark, positive when west of north point.
C_3 = Collimation of c_3 in micrometer revolutions.
a and b = Azimuth and level constants, respectively.
R = Angular value of one revolution of right ascension micrometer screw.
Z = North zenith distance of mark.

Then

$$A_m = a - \frac{D_m R + b \cos Z + C_3 R}{\sin Z}. \tag{3}$$

For the 6-inch transit circle, $R = 1^s.902$* and for the north meridian mark $Z = 92° 22'$. and we have

$$A_m = a - (2 D_m + 2 C_3 - 0.043b)\ 0^s.952.$$

Let

$$(2 D_m + 2 C_3 - 0.043b)\ 0^s.952 = K. \tag{4}$$

Then

$$A_m = a - K, \tag{5}$$

$$\text{and} \quad a = A_m + K. \tag{6}$$

In practice, the value of a is computed from the observations by means of formula (2) and the value of K from formula (4). It is then convenient to pass from the azimuth of the instrument to the azimuth of the mark, or from the azimuth of the mark to the azimuth of the instrument, by means of formulæ (5) and (6), respectively.

The observations for azimuth of the mark which follow have been made rather frequently in order to test the steadiness of the mark, and also to detect any systematic difference that there may be between the results from α Ursæ Minoris at upper and lower culmination. As to the latter, we have the following results from 83 observations:

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*From February 13, 1900, to July 16, 1900, the adopted value of one revolution of the right ascension micrometer screw was $1^s.900$.

Azimuth of mark from α Ursæ Minoris $+0^{s}.506$, 47 observations.
Azimuth of mark from α Ursæ Minoris S. P. $+0^{s}.505$, 36 observations.

Adopted Values of Azimuth of Meridian Mark.

Period.	Observer.	Clamp.	Adopted A_m.	No. Obs'ns.
Feb. 13 to Mar. 12, 1900	L.	E.	$+0^{s}.449$	8
Mar. 14 to May 2, 1900	U. and L.	E.	0.529	8
June 5 to July 16, 1900	U.	E.	0.498	13
Oct. 5 to Dec. 6, 1900	U.	W.	0.500	18
Dec. 7, 1900, to Jan. 5, 1901	U. and L.	W.	0.506	16
Jan. 6 to Jan. 30, 1901	U. and L.	W.	0.523	8
Feb. 22 to Mar. 7, 1901	U.	W.	0.534	12
Mar. 8 to Mar. 15, 1901	U.	W.	+0.579	3

Latitude.—In observing circumpolar stars in right ascension for azimuth of the mark we have usually at the same time also observed the stars in declination for fundamental determination of the latitude. A single determination of the latitude consists in the mean of the latitudes derived from two observations of the same star, one at upper and the other at lower culmination. The observations have been reduced with the Pulkowa refraction tables, and can not be regarded as really fundamental until the corrections to these tables for this observatory have been determined and applied. The results which follow agree in a general way with previous determinations of the latitude. They are uncorrected, however, for flexure and division error.

Summary of Observations of Circumpolar Stars for Latitude.

Date.	Mean Epoch.	Star.	Circle.	Clamp.	Latitude.	No. Obs'ns.
	1900+				° ′ ″	
Feb. 19, 1900, to Mar. 15, 1901	0.280	α Ursæ Minoris	A	E.	38 55 14.56	13
	0.349	α Ursæ Minoris S. P.	A	E.	13.09	16
	1.027	α Ursæ Minoris	A	W.	14.44	20
	1.094	α Ursæ Minoris S. P.	A	W.	14.68	12
Mar. 12, 1900, to Mar. 15, 1901	0.331	α Ursæ Minoris	B	E.	14.98	9
	0.394	α Ursæ Minoris S. P.	B	E.	14.93	13
	1.031	α Ursæ Minoris	B	W.	14.20	23
	1.094	α Ursæ Minoris S. P.	B	W.	13.83	12
Dec. 8, 1900, to Dec. 20, 1900	0.963	43 H. Cephei	A	W.	15.28	4
	0.951	43 H. Cephei S. P.	A	W.	13.85	4
Dec. 8, 1900, to Dec. 20, 1900	0.958	43 H. Cephei	B	W.	14.48	5
	0.951	43 H. Cephei S. P.	B	W.	13.92	4

Probable error of one observation $= 0''.39$

Summary of Observations of Circumpolar Stars for Latitude—Continued.

Mean Epoch.	Star.	Clamp.	Circle.	Latitude.	Weight.
				° ′ ″ ″	
1901.060	α Ursæ Minoris	W.	A	38 55 14.56 ±0.10	2
1900.314	α Ursæ Minoris	E.	A	13.82 ±0.10	2
1901.062	α Ursæ Minoris	W.	B	14.02 ±0.10	2
1900.362	α Ursæ Minoris	E.	B	14.96 ±0.12	2
1900.957	43 H. Cephei	W.	A	14.56 ±0.14	1
1900.954	43 H. Cephei	W.	B	14.20 ±0.14	1

Mean φ 38° 55′ 14″.35 ± 0″.15
Correction for bisection error −0 .20

These results may be arranged as follows:

	° ′ ″
Circle A, Clamp W.,	38 55 14.56
" A, " E.,	13.82
" B, " W.,	14.11
" B, " E.,	14.96
Mean...	38 55 14.36

	° ′ ″
Circle A, Clamps W. and E.,	38 55 14.31
" B, Clamps W. and E.,	14.39
Clamp W., Circles A and B,	14.34
" E., Circles A and B,	14.39

The number of divisions of the circles used is enough to partially eliminate the effect of division errors. The mean result corrected for bisection error but uncorrected for flexure and error of refraction tables is +38° 55′ 14″.15.

Results of Observations of Circumpolar Stars for Azimuth of Meridian Mark and for Latitude.

Date.	Star.	Observer.	Clamp.	a.	K.	A_m.	Latitude. A.	Latitude. B.
1900				s	s	s	38° 55′ ″	38° 55′ ″
Feb. 19	α Ursæ Minoris.......	L.	E.	+2.350	+1.883	+0.467	14.4	....
19	α Ursæ Minoris S. P...			+2.378	+1.921	+0.457	12.4	....
23	α Ursæ Minoris S. P...			+2.484	+1.972	+0.512	13.2	....
27	α Ursæ Minoris.......			+2.219	+1.851	+0.368	14.5	....
Mar. 3	α Ursæ Minoris.......			+2.842	+2.403	+0.439	14.0	....
3	α Ursæ Minoris S. P...			+2.939	+2.465	+0.474	13.4	....
7	α Ursæ Minoris....... }			+2.322	+1.874	[+0.448]	15.1	....
7	α Ursæ Minoris S. P... }							
12	α Ursæ Minoris.......			+2.506	+2.082	+0.424	14.3	14.1
14	α Ursæ Minoris.......			+2.377	+1.853	+0.524	15.5	14.4
16	α Ursæ Minoris.......			.....	.....	.....	14.6	13.4
16	α Ursæ Minoris S. P...			+2.556	+2.023	+0.533	13.0	13.6
27	α Ursæ Minoris.......			+2.409	+1.824	+0.585	15.6	15.2
28	α Ursæ Minoris S. P...	L.		+2.300	+1.828	+0.472	13.0	14.8
30	α Ursæ Minoris S. P...	U.	E.	+2.456	+1.942	+0.514	13.4	15.4
Apr. 9	α Ursæ Minoris S. P...	U.	W.	+0.144	−0.382	+0.526	[12.9]	[16.5]
19	α Ursæ Minoris S. P...	L.	E.	−0.898	−1.463	+0.565	13.6	13.4
24	α Ursæ Minoris.......	U.		−0.813	−1.328	+0.515	13.4	12.7
June 5	α Ursæ Minoris S. P...			+0.460	−0.003	+0.463	13.3	15.3
5	α Ursæ Minoris.......	U.	E.	+0.693	+0.162	+0.531	14.6	16.2

The mirrors for illuminating the circles were being repaired from November 11 to December 6, inclusive, and during this time no observations in declination were made.

Results of Observations of Circumpolar Stars for Azimuth of Meridian Mark and for Latitude—Cont'd.

Date.	Star.	Observer.	Clamp.	*a*.	*K*.	A_m.	Latitude.	
							A.	B.
1900				s	s	s	38° 55′ ″	38° 55′ ″
June 7	α Ursæ Minoris S. P	U.	E.	+0. 158	−0. 346	+0. 504	13. 2	15. 6
8	α Ursæ Minoris			+0. 202	−0. 307	+0. 509	14. 1	16. 0
9	α Ursæ Minoris S. P			+0. 040	−0. 494	+0. 534	13. 2	15. 0
11	α Ursæ Minoris S. P			−0. 226	−0. 716	+0. 490	13. 8	14. 9
20	α Ursæ Minoris S. P			+0. 206	−0. 300	+0. 506	13. 4	15. 2
20	α Ursæ Minoris			+0. 444	−0. 108	+0. 552	15. 1	16. 4
21	α Ursæ Minoris S. P			−0. 034	−0. 448	+0. 414	11. 7	14. 7
22	α Ursæ Minoris S. P			−0. 064	−0. 549	+0. 485	13. 1	15. 4
23	α Ursæ Minoris S. P			−0. 188	−0. 675	+0. 487	12. 6	15. 1
30	α Ursæ Minoris S. P			−0. 932	−1. 423	+0. 491	13. 1	15. 7
30	α Ursæ Minoris		E.	−0. 526	−1. 036	+0. 510	14. 1	16. 4
Nov. 11	43 H. Cephei		W.	−0. 214	−0. 631	+0. 417	....	....
11	α Ursæ Minoris			−0. 120	−0. 632	+0. 512	....	....
11	α Ursæ Minoris S. P			−0. 022	−0. 514	+0. 492	....	....
12	43 H. Cephei			−0. 176	−0. 572	+0. 396	....	....
12	α Ursæ Minoris			−0. 104	−0. 572	+0. 468	....	....
13	43 H. Cephei			−0. 280	−0. 717	+0. 437	....	....
13	α Ursæ Minoris			−0. 268	−0. 717	+0. 449	....	....
13	43 H. Cephei S. P			−0. 076	−0. 583	+0. 507	....	....
13	α Ursæ Minoris S. P			−0. 092	−0. 583	+0. 491	....	....
14	43 H. Cephei			−0. 078	−0. 550	+0. 472	....	....
14	α Ursæ Minoris			−0. 065	−0. 550	+0. 485	....	....
15	α Ursæ Minoris S. P			+0. 186	−0. 334	+0. 520	....	....
16	43 H. Cephei			+0. 087	−0. 379	+0. 466	....	....
16	α Ursæ Minoris			+0. 124	−0. 380	+0. 504	....	....
22	43 H. Cephei			−0. 453	−1. 010	+0. 557	....	....
22	α Ursæ Minoris			−0. 476	−0. 984	+0. 508	....	....
27	43 H. Cephei			+0. 759	+0. 302	+0. 457	....	....
27	α Ursæ Minoris			+0. 802	+0. 315	+0. 487	....	....
29	α Ursæ Minoris S. P			+1. 272	+0. 768	+0. 504	....	....
30	43 H. Cephei			−0. 225	−0. 759	+0. 534	....	....
30	α Ursæ Minoris			−0. 251	−0. 759	+0. 508	....	....
30	43 H. Cephei S. P			−0. 066	−0. 605	+0. 539	....	....
30	α Ursæ Minoris S. P			−0. 056	−0. 586	+0. 530	....	....
Dec. 1	43 H. Cephei			−0. 268	−0. 737	+0. 469	....	....
1	α Ursæ Minoris			−0. 276	−0. 733	+0. 457	....	....
1	43 H. Cephei S. P			−0. 164	−0. 670	+0. 506	....	....
1	α Ursæ Minoris S. P			−0. 157	−0. 662	+0. 505	....	....
2	43 H. Cephei			−0. 339	−0. 846	+0. 507	....	....
2	α Ursæ Minoris			−0. 292	−0. 835	+0. 543	....	....
5	43 H. Cephei			−0. 296	−0. 786	+0. 490	....	....
5	α Ursæ Minoris			−0. 285	−0. 777	+0. 492	....	....
6	43 H. Cephei			−0. 182	−0. 736	+0. 554	....	....
6	α Ursæ Minoris			−0. 214	−0. 721	+0. 507	....	....
8	43 H. Cephei			−0. 282	−0. 784	+0. 502	[12. 1]	13. 7
8	α Ursæ Minoris			−0. 288	−0. 778	+0. 490	15. 8	13. 6
9	43 H. Cephei S. P			−0. 012	−0. 488	+0. 476	14. 4	14. 6
9	α Ursæ Minoris S. P			+0. 025	−0. 485	+0. 510	14. 1	14. 1
10	α Ursæ Minoris			−0. 096	−0. 566	+0. 470	14. 1	13. 2
11	43 H. Cephei S. P			+0. 009	−0. 540	+0. 549	14. 2	14. 2
11	α Ursæ Minoris S. P			−0. 007	−0. 514	+0. 507	13. 9	14. 3
13	α Ursæ Minoris			−0. 086	−0. 574	+0. 488	14. 2	13. 8
14	43 H. Cephei S. P			+0. 364	−0. 123	+0. 487	13. 8	14. 1
14	α Ursæ Minoris S. P			+0. 400	−0. 115	+0. 515	13. 7	13. 6
15	43 H. Cephei			+0. 270	−0. 183	+0. 453	15. 4	14. 6
15	α Ursæ Minoris			+0. 280	−0. 183	+0. 463	14. 9	14. 1
16	43 H. Cephei			+0. 374	−0. 124	+0. 498	15. 1	14. 2
16	α Ursæ Minoris			+0. 376	−0. 124	+0. 500	15. 0	14. 0
18	43 H. Cephei S. P			+0. 158	−0. 304	+0. 462	13. 0	12. 8
18	α Ursæ Minoris S. P			+0. 212	−0. 304	+0. 516	14. 9	14. 5
19	43 H. Cephei			−0. 144	−0. 644	+0. 500	15. 2	15. 0
19	α Ursæ Minoris			−0. 124	−0. 627	+0. 503	14. 0	14. 0
20	43 H. Cephei			−0. 136	−0. 628	+0. 492	15. 4	14. 9
20	α Ursæ Minoris			−0. 114	−0. 619	+0. 505	15. 0	14. 3
21	α Ursæ Minoris	U.	W.	+0. 094	−0. 430	+0. 524	14. 0	14. 7

Results of Observations of Circumpolar Stars for Azimuth of Meridian Mark and for Latitude—Cont'd.

Date.		Star.	Observer.	Clamp.	*a.*	*K.*	A_m.	Latitude.	
								A.	B.
					s	s	s	38° 55′ ″	38° 55′ ″
1900 Dec.	28	α Ursæ Minoris.......	U.	W.	−0. 125	−0. 648	+0. 523	15. 4	15. 3
	29	α Ursæ Minoris.......			−0. 014	−0. 521	+0. 507	15. 1	14. 3
1901 Jan.	3	α Ursæ Minoris.......	U.		+0. 079	−0. 432	+0. 511	....	15. 3
	5	α Ursæ Minoris.......	L.		−0. 020	−0. 528	+0. 508	....	14. 8
	9	α Ursæ Minoris.......	U.		−0. 601	−1. 157	+0. 556	14. 5	14. 8
	13	α Ursæ Minoris.......	U.		−0. 306	−0. 849	+0. 543	14. 1	14. 3
	15	α Ursæ Minoris.......	L.		−0. 588	−1. 136	+0. 548	14. 4	14. 4
	16	α Ursæ Minoris.......	U.		−0. 986	−1. 475	+0. 489	13. 4	13. 6
	18	α Ursæ Minoris.......	U.		−0. 135	−0. 644	+0. 509	[10. 1]	....
	19	α Ursæ Minoris.......	L.		−0. 043	−0. 576	+0. 533	14. 9	13. 9
	20	α Ursæ Minoris.......	U.		−0. 154	−0. 687	+0. 533	13. 4	13. 6
	22	α Ursæ Minoris.......			−0. 560	−1. 034	+0. 474	14. 4	14. 2
Feb.	23	43 H. Cephei S. P......			+0. 048	−0. 489	+0. 537	14. 2	13. 2
	23	α Ursæ Minoris S. P...			+0. 032	−0. 481	+0. 513	15. 5	14. 1
	24	α Ursæ Minoris.......			−0. 054	−0. 580	+0. 526	[16. 7]	15. 0
	25	α Ursæ Minoris S. P...			−0. 268	−0. 792	+0. 524	14. 5	13. 4
	26	43 H. Cephei S. P......			−0. 182	−0. 726	+0. 544	13. 9	13. 5
	26	α Ursæ Minoris S. P...			−0. 206	−0. 719	+0. 513	14. 8	14. 4
	28	43 H. Cephei S. P......			−0. 181	−0. 719	+0. 538	14. 5	13. 5
	28	α Ursæ Minoris S. P...			−0. 190	−0. 721	+0. 531	15. 0	13. 6
Mar.	2	43 H. Cephei S. P......			−0. 592	−1. 143	+0. 551	15. 1	13. 5
	2	α Ursæ Minoris S. P...			−0. 588	−1. 134	+0. 546	15. 2	13. 3
	5	43 H. Cephei S. P......			−0. 125	−0. 635	+0. 510	13. 7	13. 2
	5	α Ursæ Minoris S. P...			−0. 128	−0. 627	+0. 499	14. 6	13. 8
	6	43 H. Cephei S. P......			+0. 062	−0. 510	+0. 572	14. 3	13. 1
	6	α Ursæ Minoris S. P...			+0. 039	−0. 518	+0. 557	15. 6	13. 4
	7	43 H. Cephei S. P......			−0. 235	−0. 815	+0. 580	13. 9	12. 8
	7	α Ursæ Minoris S. P...			−0. 290	−0. 834	+0. 544	14. 3	13. 5
	8	α Ursæ Minoris.......			−0. 450	−1. 026	+0. 576	14. 6	13. 5
	12	α Ursæ Minoris.......			−0. 239	−0. 800	+0. 561	14. 1	14. 1
	15	α Ursæ Minoris.......	U.	W.	+0. 219	−0. 381	+0. 600	13. 5	13. 8

RESULTS OF OBSERVATIONS OF FUNDAMENTAL STARS FOR PRELIMINARY TEST OF THE INSTRUMENT, AND FOR DETERMINATION OF THE LATITUDE.

These observations were made by myself, assisted by Mr. LITTELL, in April, 1900. The method of observing is described on page D XXXVI. Each star was observed in right ascension and declination four times in each position of the clamp. All stars south of the zenith were observed facing south, and those north of the zenith facing north. The nadir was observed at the beginning, near the middle, and at the end of each night's work. All the observations in right ascension were made on the chronograph, except those of 1 H. Draconis, 9 H. Draconis, and Groombridge 1706, which were made by eye and ear.

The number of stars observed is 45. They were selected from those stars in the American Ephemeris and Berliner Jahrbuch, whose apparent places are given. Thirty-two of the stars are arranged in pairs of approximately equal north and south zenith distances. The star places used are those of NEWCOMB'S Fundamental Catalogue.

On account of the presence of instrumental errors, which can not be allowed for, no attempt will be made here to discuss these observations completely; but the partial discussion which follows will give some indication of the character of the work which has been done with the instrument.

The observations in right ascension were reduced by BESSELS'S formula. A value of the quantity $\varDelta T + m$ has been assumed for each night's work and the correction to it found for each star. The mean of the four values of this correction designated as $\delta\,(\varDelta T + m)$ was taken for each star in each position of the clamp. The rate of change of $\varDelta T + m$ during each night's work was very small and no correction for it has been applied. The effect on $\delta\,(\varDelta T + m)$ is negligible. The results for the 16 pairs of stars are given in the accompanying table.

The absolute values of the quantity $\delta\,(\varDelta T + m)$ have of course no significance, but the relative values for the different stars show, within the limits of the declinations of the stars, the range of error in right ascension. For the stars south of the zenith the probable error of $\delta\,(\varDelta T + m)$ is $0^s.025$, clamp west, and $0^s.022$, clamp east. This leaves a very small margin for personal and instrumental error, as the probable errors of the right ascensions of the stars and of the mean of four observations combined can not be much smaller than this. The values of $\delta\,(\varDelta T + m)$ from stars near the pole indicate a high degree of accuracy in adopted values of the instrumental constants. The column headed *Mean* $\delta\,(\varDelta T + m)$ contains the mean of the four values of $\delta\,(\varDelta T + m)$ for each pair of stars. The probable error of one of these mean values of $\delta\,(\varDelta T + m)$ is $0^s.024$. The pairs containing circumpolar stars give results which agree remarkably well with the results from zenith stars.

There seems to be little or no trace of error due to defective illumination of the field which was found in observations with screens; see page D XXXIX. But these stars are all of the sixth magnitude or brighter, and there is reason to believe that the bad effect of the defective illumination is most pronounced when the light is turned down for the fainter stars. No corrections have been applied for personal error due to star magnitudes or to the position of the observer.

The observations in declination were reduced from the nadir and are discussed for each circle separately. This is made possible by the fact that at each observation an independent determination of the declination was made on each circle. Only the observations of the stars of the 16 pairs are included in the discussion.

The correction to the assumed latitude, $+38° 55' 14''.00$, having been found for each observation, the means were taken for each star in each position of the clamp and are arranged according to zenith distance. The mean of the four corrections for each pair is given in the column headed *Mean* $\varDelta\varphi$, and from this correction to the latitude assumed, the errors of the computed refractions, flexures of the telescope and circles, and presumably all other errors of long period depending on the zenith distance, are nearly eliminated. The systematic division errors of the circles are in part eliminated and the division errors of the nadir entirely so, since the same divisions are used on the nadir clamp east and clamp west.

The means of the corrections deduced from each of the 16 pairs of stars give

$$\text{for Circle A, } \varphi = 38^\circ\ 55'\ 13''.58 \pm 0''.04,$$
$$\text{for Circle B, } \varphi = 38^\circ\ 55'\ 14''.12 \pm 0''.04.$$

Mean Epoch April 17.5, 1900.

The probable error of the latitude from a single pair is,

Circle A, 0''.173,
Circle B, 0.170.

Assuming as the probable error of the mean of 16 observations, 0''.075, and as the probable error of the mean of 2 declinations, 0''.072, we get as the probable error of the mean of 4 divisions of the circles,

Circle A, 0''.276,
Circle B, 0.270.

These results do not include the systematic errors of division of long period, but they agree with the result given on page D LVII, which was deduced in an entirely different way, and show that the circles were not as accurately divided as they should be. As stated elsewhere, these circles have recently been redivided by the makers.

The column headed *W.—E.* gives the difference between the observed corrections to the assumed latitude for each star in the two positions of the clamp. The column headed *S.—N.* gives the difference between the results from the two stars of a pair. But on account of the uncorrected errors of division it is perhaps not practicable to deduce any results of value from these differences concerning the systematic errors of the instrument in declination. No corrections have been applied for personal error due to the position of the observer.

Results of Observations in Right Ascension for Testing the Performance of the Instrument.

No.	Star.	Mag.	R. A.	Decl.	Z. D.	$\delta(\Delta T + m)$						Mean Z. D.
						W.	E.	W. − E.	$\frac{\text{W.}+\text{E.}}{2}$	S. − N.	Mean.	
			h m	° ′	° ′	s	s	s	s	s	s	° ′
1	19 Leo. Min ..	5.2	9 51	+ 41 32	− 2 37	−0.208	−0.155	−0.053	−0.182	+0.053	−0.156	2 10
	31 Leo. Min ..	4.3	10 22	+ 37 13	+ 1 42	−0.150	−0.108	−0.042	−0.129			
2	μ Urs. Maj ..	3.0	10 16	+ 42 0	− 3 5	−0.112	−0.175	+0.063	−0.144	−0.002	−0.145	2 35
	10 Leo. Min ..	4.8	9 28	+ 36 50	+ 2 5	−0.152	−0.140	−0.012	−0.146			
3	λ Urs. Maj ..	3.3	10 11	+ 43 25	− 4 30	−0.115	−0.125	+0.010	−0.120	−0.042	−0.141	4 18
	40 Lyncis	3.3	9 14	+ 34 49	+ 4 6	−0.180	−0.145	−0.035	−0.162			
4	ψ Urs. Maj...	3.1	11 4	+ 45 2	− 6 7	−0.045	−0.075	+0.030	−0.060	−0.064	−0.092	5 42
	ν Urs. Maj ..	3.3	11 13	+ 33 38	+ 5 17	−0.168	−0.080	−0.088	−0.124			
5	κ Urs. Maj...	3.3	8 57	+ 47 33	− 8 38	−0.112	−0.052	−0.060	−0.082	−0.040	−0.102	8 10
	42 Leo. Min ..	5.0	10 40	+ 31 13	+ 7 42	−0.150	−0.093	−0.057	−0.122			
6	θ Urs. Maj ..	3.0	9 26	+ 52 8	−13 13	−0.080	−0.090	+0.010	−0.085	−0.097	−0.134	13 57
	ε Leonis	3.0	9 40	+ 24 14	+14 41	−0.218	−0.145	−0.073	−0.182			
7	36 Urs. Maj ..	5.0	10 24	+ 56 30	−17 35	−0.118	−0.110	−0.008	−0.114	−0.028	−0.128	17 43
	δ Leonis	2.3	11 9	+ 21 4	+17 51	−0.183	−0.100	−0.083	−0.142			
8	υ Urs. Maj ..	3.6	9 44	+ 59 31	−20 36	−0.130	−0.120	−0.010	−0.125	−0.107	−0.178	21 8
	η Leonis	3.3	10 2	+ 17 15	+21 40	−0.280	−0.185	−0.095	−0.232			
9	α Urs. Maj...	2.0	10 58	+ 62 17	−23 22	−0.190	−0.195	+0.005	−0.192	+0.023	−0.180	23 34
	β Leonis	2.0	11 44	+ 15 8	+23 47	−0.240	−0.098	−0.142	−0.169			
10	3 Draconis ..	5.3	11 37	+ 67 17	−28 23	−0.168	−0.150	−0.018	−0.159	+0.027	−0.146	28 6
	l Leonis	5.1	10 44	+ 11 4	+27 50	−0.182	−0.082	−0.100	−0.132			
11	σ² Urs. Maj...	5.0	9 2	+ 67 32	−28 37	−0.095	+0.005	−0.100	−0.045	−0.115	−0.102	28 35
	ο Leonis	3.8	9 36	+ 10 21	+28 34	−0.195	−0.125	−0.070	−0.160			
12	λ Draconis ..	3.3	11 25	+ 69 52	−30 58	−0.215	−0.177	−0.038	−0.196	+0.058	−0.167	30 41
	π Leonis	5.0	9 55	+ 8 31	+30 24	−0.153	−0.122	−0.031	−0.138			
13	9 H. Draconis	4.6	10 27	+ 76 13	−37 19	−0.082	+0.055	−0.137	−0.014	−0.132	−0.080	36 45
	θ Hydræ....	4.0	9 9	+ 2 44	+36 11	−0.205	−0.088	−0.117	−0.146			
14	Gr. 1706 ..	6.3	10 52	+ 78 17	−39 23	−0.122	−0.330	+0.208	−0.226	+0.041	−0.206	39 17
	υ Leonis....	4.8	11 32	− 0 16	+39 11	−0.218	−0.152	−0.066	−0.185			
15	1 H. Draconis	4.3	9 23	+ 81 45	−42 51	−0.160	−0.042	−0.118	−0.101	−0.062	−0.132	42 46
	6 Sextantis..	6.1	9 46	− 3 46	+42 41	−0.178	−0.148	−0.030	−0.163			
16	24 Cephei S. P.	4.8	10 8	+108 16	−69 14	−0.185	−0.167	−0.018	−0.176	+0.002	−0.175	69 44
	ξ Hydræ	4.0	11 28	− 31 18	+70 13	−0.208	−0.140	−0.068	−0.174			

Probable error of $\delta(\Delta T + m)$ for stars south of zenith $= 0^s.025$, clamp west, and $0^s.022$, clamp east.
Probable error of *Mean* $\delta(\Delta T + m)$ from stars of one pair $= 0^s.024$

Results of Observations in Declination for Testing the Performance of the Instrument.

CIRCLE A.

No.	Star.	R. A.	Z. D.	Δφ			S.−N.		Mean Δφ
				W.	E.	W.−E.	W.	E.	
		h m	° ′	″	″	″	″	″	″
1	19 Leonis Minoris	9 51	− 2 37	+0.38	−0.75	+1.13	−1.43	−0.15	−0.58
	31 Leonis Minoris	10 22	+ 1 42	−1.05	−0.90	−0.15			
2	μ Ursæ Majoris	10 16	− 3 5	+0.52	−0.80	+1.32	−0.80	+0.40	−0.24
	10 Leonis Minoris	9 28	+ 2 5	−0.28	−0.40	+0.12			
3	γ Ursæ Majoris	10 11	− 4 30	−0.38	+0.68	−1.06	+0.06	−0.88	−0.06
	40 Lyncis	9 14	+ 4 6	−0.32	−0.20	−0.12			
4	ψ Ursæ Majoris	11 4	− 6 7	−0.23	+0.42	−0.65	−0.84	−0.27	−0.18
	ν Ursæ Majoris	11 13	+ 5 17	−1.07	+0.15	−1.22			
5	κ Ursæ Majoris	8 57	− 8 38	−0.62	+0.32	−0.94	−1.08	−0.19	−0.47
	42 Leonis Minoris	10 40	+ 7 42	−1.70	+0.13	−1.83			
6	θ Ursæ Majoris	9 26	−13 13	−0.35	−0.30	−0.05	−0.45	+0.20	−0.39
	ε Leonis	9 40	+14 41	−0.80	−0.10	−0.70			
7	36 Ursæ Majoris	10 24	−17 35	−0.18	−0.40	+0.22	−1.47	+0.18	−0.61
	δ Leonis	11 9	+17 51	−1.65	−0.22	−1.43			
8	υ Ursæ Majoris	9 44	−20 36	+0.55	−1.05	+1.60	−1.60	+1.80	−0.20
	η Leonis	10 2	+21 40	−1.05	+0.75	−1.80			
9	α Ursæ Majoris	10 58	−23 22	−0.22	+0.02	−0.24	−0.23	+0.56	−0.02
	β Leonis	11 44	+23 47	−0.45	+0.58	−1.03			
10	3 Draconis	11 37	−28 23	+0.50	+0.98	−0.48	−2.70	−2.46	−0.55
	l Leonis	10 44	+27 50	−2.20	−1.48	−0.72			
11	σ^2 Ursæ Majoris	9 2	−28 37	+1.22	−0.10	+1.32	−1.72	−2.18	−0.42
	ο Leonis	9 36	+28 34	−0.50	−2.28	+1.78			
12	λ Draconis	11 25	−30 58	−1.00	+0.15	−1.15	−0.18	−2.03	−0.98
	π Leonis	9 55	+30 24	−1.18	−1.88	+0.70			
13	9 H. Draconis	10 27	−37 19	+0.75	+0.30	+0.45	−2.10	−1.38	−0.34
	θ Hydræ	9 9	+36 11	−1.35	−1.08	−0.27			
14	Gr. 1706	10 52	−39 23	+0.70	+0.62	+0.08	−2.45	−1.42	−0.31
	υ Leonis	11 32	+39 11	−1.75	−0.80	−0.95			
15	1 H. Draconis	9 23	−42 51	+0.10	−1.02	+1.12	−0.92	+0.02	−0.68
	6 Sextantis	9 46	+42 41	−0.82	−1.00	+0.18			
16	24 Cephei S. P	10 8	−69 14	+0.35	+1.23	−0.88	−2.97	−3.03	−0.71
	ξ Hydræ	11 28	+70 13	−2.62	−1.80	−0.82			
									−0.421

Probable error of latitude from one pair $= 0''.173$

Assumed $\varphi = +38° 55' 14''.00$

Observed $\varphi = +38° 55' 13''.58 \pm 0''.043$

Results of Observations in Declination for Testing the Performance of the Instrument—Continued.

CIRCLE B.

No.	Star.	R. A.		Z. D.		$\Delta\varphi$			S.—N.		Mean $\Delta\varphi$
						W.	E.	W.—E.	W.	E.	
		h	m	°	′	″	″	″	″	″	″
1	19 Leonis Minoris	9	51	−2	37	−0.18	+1.20	−1.38	−0.44	−1.72	−0.03
	31 Leonis Minoris	10	22	+1	42	−0.62	−0.52	−0.10			
2	μ Ursæ Majoris	10	16	−3	5	−1.58	+2.02	−3.60	+0.76	−1.44	+0.05
	10 Leonis Minoris	9	28	+2	5	−0.82	+0.58	−1.40			
3	λ Ursæ Majoris	10	11	−4	30	−0.08	+0.88	−0.96	−0.12	+0.97	+0.61
	40 Lyncis	9	14	+4	6	−0.20	+1.85	−2.05			
4	ψ Ursæ Majoris	11	4	−6	7	−0.90	+0.42	−1.32	+0.77	+0.96	+0.19
	ν Ursæ Majoris	11	13	+5	17	−0.13	+1.38	−1.51			
5	κ Ursæ Majoris	8	57	−8	38	−0.48	−0.60	+0.12	+1.10	+1.23	+0.04
	42 Leonis Minoris	10	40	+7	42	+0.62	+0.63	−0.01			
6	θ Ursæ Majoris	9	26	−13	13	+0.32	+0.85	−0.53	−0.42	−0.63	+0.32
	ε Leonis	9	40	+14	41	−0.10	+0.22	−0.32			
7	36 Ursæ Majoris	10	24	−17	35	−0.45	+1.00	−1.45	+0.42	−1.32	+0.05
	δ Leonis	11	9	+17	51	−0.03	−0.32	+0.29			
8	υ Ursæ Majoris	9	44	−20	36	−1.00	+0.85	−1.85	+0.28	−1.00	−0.26
	η Leonis	10	2	+21	40	−0.72	−0.15	−0.57			
9	α Ursæ Majoris	10	58	−23	22	+0.40	+0.48	−0.08	−0.52	+0.07	+0.33
	β Leonis	11	44	+23	47	−0.12	+0.55	−0.67			
10	3 Draconis	11	37	−28	23	+1.08	−0.35	+1.43	−0.48	−1.00	0.00
	l Leonis	10	44	+27	50	+0.60	−1.35	+1.95			
11	σ^2 Ursæ Majoris	9	2	−28	37	+0.82	−0.20	+1.02	−1.12	−0.20	−0.02
	ο Leonis	9	36	+28	34	0.30	−0.40	+0.10			
12	λ Draconis	11	25	−30	58	+1.30	−0.32	+1.62	−1.18	−1.23	−0.11
	π Leonis	9	55	+30	24	+0.12	−1.55	+1.67			
13	9 H. Draconis	10	27	−37	19	+0.78	+0.58	+0.20	−1.00	−0.80	+0.23
	θ Hydræ	9	9	+36	11	−0.22	−0.22	0.00			
14	Gr. 1706	10	52	−39	23	+2.00	+0.92	+1.08	−2.08	−2.00	+0.44
	υ Leonis	11	32	+39	11	−0.08	−1.08	+1.00			
15	1 H. Draconis	9	23	−42	51	+1.58	+0.92	+0.66	−2.20	−1.60	+0.30
	6 Sextantis	9	46	+42	41	−0.62	−0.68	+0.06			
16	24 Cephei S. P.	10	8	−69	14	+0.80	+0.23	+0.57	−1.62	−1.53	−0.27
	ξ Hydræ	11	28	+70	13	−0.82	−1.30	+0.48			
											+0.117

Probable error of latitude from one pair =0.″170

Assumed φ = +38° 55′ 14.″00

Observed φ = +38° 55′ 14.″12 ± 0.″04

OBSERVATIONS OF STARS.

The observations of stars, the individual results, and the mean results are printed in a manner which is nearly self-explanatory. In printing the observations the means of the transits across the threads in right ascension and the means of the microscopes are given instead of the separate transits and microscope readings. The observed, and to some extent the adopted, instrumental constants are given on pages D LX to D LXVIII, and an attempt has been made to give, as far as practicable, all data needed for repeating the reductions. The notes found at the bottom of the page are referred to the proper star by reference numbers. Values of $\Delta T + m$ in heavy-face type belong to clock stars, and when inclosed in brackets have not been used in deriving the adopted values of $\Delta T + m$. Observations of a few anonymous stars were made by mistake, and in such cases the observations and results have been printed with the others.

Concerning the accuracy of the work, it may be said that while the accidental errors of observation are small, considerable systematic errors are to be expected for reasons already given.

List of 139 Zodiacal Stars.—These observations were undertaken by the Observatory at the request of Sir DAVID GILL, H. M. Astronomer, Cape of Good Hope. Excepting a part of the observations of the Sun, Moon, and planets contained in Vol. I of this series of publications, this is the first work done with the 6-inch transit circle. The methods of observation and reduction used are given on pages D XXXV to D XXXVII.

After certain repairs to the instrument were completed, work was commenced on February 13, 1900. Excepting one group of comparison stars for Jupiter, the observations were finished on July 16, 1900. This group of stars would have been observed in May but for the absence of both myself and Mr. LITTELL on other duty, and was observed during February and March, 1901. It was intended to observe each star five times. The total number of observations made is 825, of which about 70 were made by Assistant Astronomer, (now Professor), F. B. LITTELL and the rest by myself. Assistance in reading microscopes and recording was rendered by Computers G. K. LAWTON and J. C. HAMMOND.

This work was well adapted to an instrument the errors of which had not been thoroughly investigated. The stars are disposed in small isolated groups, and those in each group differ only a few degrees in declination. The nadir points of the circles were observed at the beginning and end of each night's work, but have not been used in the reductions, which have been made purely differential in both right ascension and declination. Whenever an assistant was available both circles were read in declinations. Excepting in case of a few observations made on April 5, all the work done in 1900 was with the clamp east. The clamp was west during the observations of February and March, 1901. It is to be regretted that each star was not observed two or three times in each position of the clamp, but the circumstances under which the work was done rendered this impracticable. A statement as to the probable effect of division errors in declination will be found on page D VII.

The probable error of a single observation in right ascension is about $0^s.022$. When both circles are read in declination, the probable error of a single observation is $0''.22$.

A correction for inequality of pivots of $-0^s.014$, clamp west, has been applied.

The results of observations for personal equation due to star magnitudes are given on page D XL, but no correction of this kind has been applied to these observations.

Pulkowa refraction tables have been used in the computation of the refractions. The star places used are those of NEWCOMB'S Fundamental Catalogue. In case of a few stars not in NEWCOMB'S Catalogue the places used were furnished by the office of the American Ephemeris and Nautical Almanac. These places, which are given in the table below, have been derived from the same sources and by the same methods as those of NEWCOMB'S Fundamental Catalogue and may be considered as belonging to the same system.

The reductions to mean place have been computed by means of the independent star-numbers of the American Ephemeris.

Places of Zero Stars not in NEWCOMB'S *Fundamental Catalogue.*

Name.	Mag.	R. A. 1900.0	Cent. Var.	Proper Motion.	Decl. 1900.0	Cent. Var.	Proper Motion.
		h m s	s	s	° ′ ″	″	″
108 Tauri.........	6.8	5 9 26.987	+360.321	−0.108	+22 10 13.60	+ 436.06	− 2.66
n Tauri.........	5.2	5 13 16.093	+360.301	+0.149	+21 59 35.31	+ 397.69	− 8.28
o Tauri.........	6.0	5 21 37.697	+360.144	+0.009	+21 51 5.70	+ 333.14	− 0.95
3 Geminorum...	6.5	6 3 39.694	+364.450	+0.096	+23 7 47.52	− 31.97	+ 0.58
P. XII, 170....	6.8	12 39 3.283	+307.721	−0.459	− 2 17 40.34	−1976.51	− 0.31
37 Virginis	7.2	12 46 31.483	+305.295	−0.285	+ 3 36 1.48	−1961.45	+ 2.55
Mayer 592	6.0	14 31 40.544	+318.611	−5.943	−11 52 48.42	−1543.27	+38.53
24 Ophiuchi	5.6	16 50 46.144	+361.387	−0.038	−22 59 29.68	− 599.85	− 3.32
ξ Ophiuchi	4.5	17 15 0.621	+359.267	+1.645	−21 0 19.38	− 410.76	−19.81
C^2 Ophiuchi	4.9	17 25 18.836	+365.743	−0.052	−23 53 6.97	− 305.28	− 2.93
X Sagittarii.....	4–6	17 41 15.957	+377.463	−0.037	−27 47 33.79	− 165.90	− 2.13
Mayer 722....	6.5	17 50 2.090	+352.826	+0.130	−18 47 3.74	− 87.47	− 0.21
Bradley 2335 ..	6.0	18 32 55.676	+357.806	−0.616	−21 8 3.87	+ 274.22	−12.85

DATA FOR WEIGHTS.

Name.	Right Ascension.			Declination.		
	Mean Epoch.	Weight.		Mean Epoch.	Weight.	
		α_0	Cent. Var.		δ_0	Cent. Var.
108 Tauri.........	1872.5	15.5	2.07	1871.8	11.0	0.85
n Tauri.........	1863.8	55.8	3.75	1863.0	35.2	2.12
o Tauri.........	1868.2	62.3	3.88	1869.0	35.4	1.93
3 Geminorum...	1864.0	37.2	3.20	1865.7	25.5	1.70
P. XII, 170....	1876.5	15.5	0.63	1881.3	10.8	0.32
37 Virginis	1874.1	42.4	2.32	1871.5	21.9	1.25
Mayer 592	1876.0	59.5	2.37	1876.3	27.7	0.88
24 Ophiuchi	1875.7	49.4	2.37	1877.0	27.0	0.81
ξ Ophiuchi	1868.4	110.2	5.69	1868.0	53.9	2.90
C^2 Ophiuchi	1869.3	94.0	5.87	1869.1	38.6	2.09
X Sagittarii	1870.7	97.6	4.78	1870.5	42.6	2.04
Mayer 722	1888.0	35.0	0.30	1887.5	20.3	0.14
Bradley 2335 ..	1881.0	43.3	1.72	1883.4	21.3	0.41

Supplementary list of 352 reference stars for the planet Eros.—These observations were begun on December 8, 1900, and were finished on January 29, 1901. 1,672 observations were made, 1,370 of Eros stars and 302 of zero stars. Of these, 1,144 observations were made by myself and 528 by Mr. F. B. LITTELL. Assistance in reading microscopes and in recording was rendered by Mr. LITTELL and by Mr. G. K. LAWTON.

The observations and reductions have been made by the methods used in case of the preceding list of stars. On account of the large variation of the azimuth of the instrument with temperature, readings on the meridian mark were made about once an hour during each night's work. In reducing the observations in right ascension the azimuth constant was interpolated for each star. The variation of the azimuth was always regular and uniform enough so that this could be done accurately, and the errors arising from this source are probably very small. The nadir point was observed on both circles at the beginning, at the end, and near the middle of each night's work, but the observations in declination as printed have been reduced differentially from the zero stars.

All the observations were made with the clamp west and with the circles in the same position on the axis of the instrument. The instrument should have been reversed during the progress of the work, so as to give, as far as possible, two observations of each star in each position of the clamp. This would have been done but for the fact that when the work was begun circumstances seemed to indicate that only about two or three observations per star would be secured. It is hoped that the reading of both circles in declination and the selection of the zero stars as near as possible to the stars to be determined, will to some extent compensate for this deficiency.

The observations have been reduced differentially in both right ascension and declination. A list of the zero stars employed is given below. The star places used are those of NEWCOMB'S Fundamental Catalogue. No corrections for division errors have been applied. The probable accidental errors in right ascension and declination for a single observation have been computed by Mr. J. C. HAMMOND, and are as follows:

For Observer U.
  Probable error in right ascension $=0^s.021 \sec \delta$
  Probable error in declination $=0''.25 \sec \delta$
For Observer L.
  Probable error in right ascension $=0^s.023 \sec \delta$
  Probable error in declination $=0''.28 \sec \delta$

Observations with wire screens for personal equation due to difference of star magnitudes were made by myself on six nights, and by Mr. LITTELL on four nights, before commencing this work. After its completion observations for the same purpose were made by myself on seven nights. The mean results are given on page D XL. They seem to indicate that Mr. LITTELL'S personal equation from this cause is larger than my own by one or two hundredths of a second, and a similar difference has been found by comparison of our observations in right ascension. All observations of stars which were observed two or more times both by myself and Mr. LITTELL (excluding observations in right ascension of December 29) have been discussed in order to determine any systematic difference due to personality of observers. The mean difference in right ascension for 95 stars gives

$$U.-L.=-0^s.017.$$

The mean for 113 stars in declination gives

$$U.-L.=-0''.02, \text{ Circle A; and } U.-L.=-0''.05, \text{ Circle B.}$$

The difference *U.—L.* in right ascension seems to be about the same for all the stars from the sixth to the ninth magnitudes, but may be due wholly or in part to difference of personal equation depending upon star magnitudes. No correction for personal equation due to star magnitudes has been applied to the individual results as printed, but in taking the means of the individual results for each star the correction —$0^s.017$ was applied to Mr. LITTELL'S observations to reduce them to mine. No correction for the difference *U.—L.* in declination has been made, for the reason that the difference is so small that its reality may be open to doubt.

The differences of the observed declinations on Circles A and B have been taken for each star, and the mean difference without regard to sign is 0''.56. This indicates a probable error due to division errors in the mean of four microscopes of about 0''.25, which result agrees with a previous determination by a different method.

The probable error due to division error of the declination of a star determined with both circles may be taken as about $0''.2$.

The observations were made, on the whole, under fairly good conditions. Before beginning this work the instrument had been dismounted for some weeks in an unsuccessful attempt to get rid of the variation of the azimuth with temperature mentioned above, and soon after its completion the instrument was again dismounted for the purpose of investigating and removing this and other defects. A large part of the work was done in rather cold weather, but the seeing was fair on the average. On several cold nights the air was so damp that the slightest additional moisture caused the formation of frost on the eyepiece to an extent that was very troublesome. The moisture seemed to come from the eyeball, and by using spectacles, which served as a shield, I was able to observe, when without them work would have been impossible.

The right ascensions of December 29 from $3^h\ 0^m$ to $6^h\ 0^m$ are systematically too small by about $0^s.07$ as compared with the results of observations of the same stars on other nights. No satisfactory explanation of this has been found, nor does there seem to be any good reason for rejecting these observations or giving them diminished weight.

The greater part of the work of reducing the observations was done by Mr. J. C. HAMMOND, Computer. The methods of reduction used are the same as those given on pages D XXXVI and D XXXVII. The reductions to mean place were made in duplicate, using the BESSELIAN star-numbers of the American Ephemeris and the star-constants furnished for the purpose by the *Conférence Astrophotographique Internationale* of July, 1900.

List of 32 Fundamental Stars used in the Observation of the Eros Reference Stars.

Star.	Mag.	R. A. 1900.0			Decl. 1900.0	
		h	m	s	°	′
α Trianguli	3.6	1	47	23	+29	6
β Arietis	2.7	1	49	7	+20	19
γ Andromedæ	2.2	1	57	45	+41	51
α Arietis	2.2	2	1	32	+22	59
ξ¹ Ceti	4.5	2	7	42	+ 8	23
ξ² Ceti	4.3	2	22	50	+ 8	1
ν Arietis	5.4	2	33	8	+21	32
μ Ceti	4.4	2	39	32	+ 9	42
41 Arietis	3.7	2	44	6	+26	51
β Persei	Var.	3	1	39	+40	34
δ Arietis	4.6	3	5	55	+19	21
ζ Arietis	5.0	3	9	9	+20	40
ξ Tauri	3.8	3	21	45	+ 9	23
ε Persei	3.0	3	51	8	+39	43
λ Tauri	3.5	3	55	8	+12	12
ν Tauri	4.0	3	57	50	+ 5	43
43 Tauri	5.8	4	3	20	+19	21
γ Tauri	3.9	4	14	6	+15	23
δ Tauri	3.9	4	17	10	+17	19
α Tauri	1.1	4	30	11	+16	19
τ Tauri	4.3	4	36	15	+22	46
i Tauri	5.1	4	45	31	+18	40
π⁵ Orionis	3.9	4	49	2	+ 2	17
ι Tauri	4.7	4	57	7	+21	27
τ Orionis	3.6	5	12	45	− 6	57
χ Aurigæ	5.0	5	26	13	+32	7
σ Orionis	3.8	5	33	43	− 2	39
1 Geminorum	4.3	5	58	2	+23	16
ν Orionis	4.5	6	1	52	+14	47
η Geminorum	3.5	6	8	51	+22	32
μ Geminorum	3.2	6	16	55	+22	34
8 Monocerotis	4.4	6	18	28	+ 4	39

TABLE I.—*The Equatorial Thread Intervals.*

[Reduction to the mean of the nine threads, b_2 to d_2.]

Vertical Thread.		Feb. 13, 1900, to Apr. 4, 1900.	Apr. 5, 1900, to Apr. 15, 1900.	Apr. 16, 1900, to July 16, 1900.	Oct. 11, 1900, to Mar. 15, 1901.
		s	s	s	s
I		+ 35.89	+ 35.87	+ 35.89	+ 35.88
	a_1	31.58	31.49	31.58	31.52
	a_2	29.80	29.70	29.80	29.75
	a_3	27.99	27.91	27.99	27.92
	a_4	26.20	26.15	26.20	26.12
II	a_5	23.90	23.89	23.90	23.89
III	b_1	11.967	11.953	11.967	11.972
	b_2	9.359	9.377	9.359	9.409
	b_3	7.772	7.761	7.772	7.771
	c_1	4.198	4.193	4.198	4.208
	c_2	+ 2.113	2.090	+ 2.113	+ 2.074
IV	c_3	− 0.020	+ 0.020	− 0.020	− 0.019
	c_4	2.090	− 2.113	2.090	2.111
	c_5	4.193	4.198	4.193	4.186
	d_1	7.761	7.772	7.761	7.775
	d_2	9.377	9.359	9.377	9.370
V	d_3	11.953	11.967	11.953	12.006
VI	e_1	23.89	23.90	23.89	23.94
	e_2	26.15	26.20	26.15	26.14
	e_3	27.91	27.99	27.91	27.99
	e_4	29.70	29.80	29.70	29.75
	e_5	31.49	31.58	31.49	31.54
VII		− 35.87	− 35.89	− 35.87	− 35.82

TABLE II.—*Correction for the Inclination of the Fixed Zenith Distance Threads.*

Vertical Thread.	Feb. 13, 1900, to Apr. 4, 1900.	Apr. 5, 1900, to Apr. 15, 1900.	Apr. 16, 1900, to June 3, 1900.	June 4, 1900, to July 16, 1900.	Oct. 11, 1900, to Mar. 15, 1901.
	″	″	″	″	″
I	+ 0.42	− 0.42	+ 0.42	− 0.24	+ 0.41
II	+ 0.28	− 0.28	+ 0.28	− 0.16	+ 0.27
III	+ 0.14	− 0.14	+ 0.14	− 0.08	+ 0.14
IV	0.00	0.00	0.00	0.00	0.00
V	− 0.14	+ 0.14	− 0.14	+ 0.08	− 0.14
VI	− 0.28	+ 0.28	− 0.28	+ 0.16	− 0.27
VII	− 0.42	+ 0.42	− 0.42	+ 0.24	− 0.41

TABLE III.—*Record of Constants a, b, c, and n.*

Date.	Obs'r.	Sidereal Time.	*a.*	*b.*	c_0'.	t'.*	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	*n.*
1900		h m	s	s	s	°		h m h m	s	s
Feb. 13	U.	22 54	.....	+0.098	.....	....	E.			
13		0 0	+1.405	.....	−0.063	57.5				
13	U.	4 18	+1.727	+0.057	.....	....		4 57— 6 10	−0.087	−1.352
13		6 18	+1.807	+0.016	−0.099	45.4				
14	U.	4 18	+2.365	−0.078	−0.069	42.4		4 57— 6 10	−0.087	−1.882
14		6 18	+2.375	−0.044	−0.087	40.0				
15	U.	4 53	.....	+0.025	.....	....		4 57— 6 10	−0.087	−1.681
15		5 0	+2.182	+0.035	.....	....				
15		6 30	+2.217	+0.065	−0.086	45.5				
18	U.	4 24	+2.448	+0.030	−0.098	22.3		4 57— 6 10	−0.087	−1.879
18		6 18	+2.449	+0.051	.....	20.5				
19	L.	0 54	+2.332	+0.079	−0.094	24.0			−0.087	
19	U.	4 48	+2.317	+0.106	−0.078	25.2		4 57— 6 10	−0.087	−1.736
19		6 18	+2.335	+0.126	.....	23.4				
19	L.	12 24	+2.394	+0.177	−0.077	19.9			−0.087	
19		13 36	+2.362	.....	.....	19.6				
20	U.	4 24	+2.201	+0.258	−0.098	31.3		4 57— 6 10	−0.087	−1.552
20		6 12	+2.216	+0.267	.....	30.5				
23	U.	4 36	+2.258	+0.030	−0.092	43.2		4 57— 6 10	−0.087	−1.749
23		6 36	+2.285	+0.026	.....	41.8				
23	L.	11 48	+2.370	+0.033	−0.086	36.7			−0.087	
23		13 42	+2.433	.....	.....	36.1				
25	U.	4 36	+2.603	−0.097	−0.094	20.4		4 57— 6 10	−0.087	−2.077
25		5 6	.....	−0.093	.....	....				
25		6 18	+2.590	−0.089	.....	19.4				
26	U.	4 36	+2.159	−0.057	−0.107	23.1		4 57— 6 10	−0.087	−1.721
26		7 0	+2.193	−0.032	.....	21.8				
27	L.	1 36	+2.300	+0.138	−0.088	20.0			−0.087	
27	U.	4 36	+2.194	+0.184	−0.106	22.4		4 57— 6 10	−0.087	−1.585
27		6 18	+2.188	+0.194	.....	21.0				
Mar. 2	U.	4 48	+2.639	−0.040	.....	39.2		5 14— 8 41	−0.087	−2.111
2		6 18	+2.669	−0.073	−0.083	37.9				
2		8 30	+2.681	−0.077	.....	36.0				
3	L.	0 48	+2.861	−0.038	−0.085	37.3			−0.087	
3		1 36	+2.844	.....	.....	39.0				
3	U.	5 6	+2.780	−0.003	.....	40.9		4 57— 8 41	−0.087	−2.173
3		6 18	+2.788	−0.015	−0.102	39.8				
3		8 30	+2.804	+0.007	.....	37.3				
3	L.	11 54	+2.829	.....	−0.089	34.4			−0.087	
3		13 36	+2.930	+0.016	.....	34.0				
				Collimation adjusted.						
4	U.	23 0	.....	+0.110	+0.058	52.0				
5	U.	5 0	+2.308	+0.114	+0.068	48.3		5 10— 6 10	+0.072	−1.744
5		6 15	+2.336	+0.114	+0.065	46.3				
5		7 27	+2.362	.....	.....	44.8				
7	L.	0 40	+2.223	+0.145	+0.062	44.9			+0.072	
7		1 40	+2.227	.....	.....	45.0	E.			

* Read from the thermometer, GREEN No. 4195, inserted in the hollow of the casting of the east microscope bearer.

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	*a*.	*b*.	c_0'.	t'.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	*n*..
1900		h m	s	s	s	°		h m h m	s	s
Mar. 7	U.	5 2	+2.172	+0.120	.....	45.3	E.	4 57— 6 10	+0.072	−1.629
7		6 14	+2.200	+0.110	+0.062	43.4				
7		7 43	+2.263	.....	.....	41.8		7 38— 8 41	+0.072	−1.698
7		8 33	+2.287	+0.107	.....	41.0				
7	L.	12 40	+2.386	+0.175	+0.065	37.8			+0.072	
9	U.	7 30	+2.286	+0.187	.....	46.0		7 38— 8 41	+0.072	−1.652
9		8 47	+2.283	+0.211	+0.064	44.8				
10	U.	7 25	+2.020	+0.245	+0.070	48.8				
12	L.	1 0	+2.527	+0.137	+0.061	23.5			+0.072	
12		1 55	+2.537	.....	.....	25.1				
12	U.	7 8	+2.512	+0.185	+0.070	27.3		7 34— 9 2	+0.072	−1.820
12		8 56	+2.487	+0.210	.....	26.5				
14	L.	1 10	+2.378	.....	.....	41.2				
14		1 35	+2.385	+0.346	+0.067	42.1			+0.072	
16	L.	7 9	+2.577	+0.404	+0.069	30.4		7 34— 9 2	+0.072	−1.742
16		8 56	+2.541	+0.395	.....	28.1				
16	L.	13 10	+2.531	+0.379	+0.063	23.4			+0.072	
16		13 35	+2.574	.....	.....	23.2				
17	U.	0 58	+2.543	+0.366	+0.076	25.0				
17	L.	7 43	+2.564	+0.355	+0.061	22.4		7 38— 9 2	+0.072	−1.770
17		8 56	+2.573	+0.380	.....	21.0				
20	L.	7 5	+2.303	+0.489	+0.091	50.9				
21	L.	7 35	+2.739	+0.392	+0.063	35.8		7 34— 9 2	+0.072	−1.870
21		8 55	+2.708	+0.395	.....	34.0				
24	L.	7 16	+2.190	+0.504	+0.105	48.5		7 34— 9 2	+0.072	−1.395
24		9 5	+2.242	+0.543	+0.080	45.0				
27	L.	1 8	+2.354	+0.604	.....	45.0				
27		2 15	+2.350	.....	+0.070	....			+0.072	
27	L.	7 25	+2.236	+0.591	.....	48.5		7 34— 9 2	+0.072	−1.386
27		8 55	+2.280	+0.589	+0.078	45.9				
28	U.	7 7	+2.279	+0.587	+0.075	46.0		7 34— 9 2	+0.072	−1.418
28		8 56	+2.306	+0.579	.....	44.1				
28	L.	12 40	+2.349	+0.599	+0.069	40.8			+0.072	
28		13 40	+2.365	.....	.....	40.3				
30	U.	13 4	+2.457	+0.618	+0.052	36.2			+0.072	
30		13 44	+2.485	.....	.....	36.0				
31	U.	7 25	+2.443	+0.642	+0.075	42.1		7 34— 9 2	+0.072	−1.506
31		8 57	+2.458	+0.633	.....	41.1				
Apr. 1	U.	7 44	+2.254	+0.734	+0.086	52.2		7 34— 8 41	+0.072	−1.286
1		8 58	+2.235	+0.735	+0.069	50.7				
3	L.	7 30	+2.021	+0.707	+0.091	53.0		7 34— 8 41	+0.072	−1.128
3		8 44	+2.033	+0.721	+0.070	51.5	E.			
		Instrument reversed. Level and azimuth adjusted.								
5	U.	7 50	+0.358	−0.028	−0.102	52.0	W.	7 38—11 49	−0.106	−0.308
5		9 5	+0.374	−0.031	.....	51.2				
5		11 35	+0.387	−0.026	.....	49.7	W.			

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	a.	b.	c_0'.	l'.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	n.
1900		h m	s	s	s	°		h m h m	s	s
Apr. 7	L.	8 44	−0.235	+0.021	−0.109	61.9	W.	*n* interpolated.	−0.106	+0.189
7		11 47	−0.171	0.000	.....	59.0				+0.139
9	U.	8 40	−0.009	−0.067	−0.107	50.1		*n* interpolated.	−0.106	−0.040
9		10 18	+0.045	.....	.....	48.0				−0.082
9		11 51	+0.095	−0.081	−0.098	45.7				−0.121
9		13 27	+0.146	−0.076	.....	43.6				−0.161
10	U.	8 44	+0.246	−0.078	−0.106	....		*n* interpolated.	−0.106	−0.234
10		10 23	+0.308	.....	.....	....				−0.283
10		11 47	+0.316	−0.058	.....	42.2				−0.289
14	U.	8 45	+0.196	+0.080	−0.095	52.0		*n* interpolated.	−0.106	−0.102
14		10 19	+0.227	.....	.....	49.8				−0.139
14		11 46	+0.270	+0.042	.....	48.1				−0.186
15	U.	23 30	.....	+0.068	−0.111	50.0	W.			
			Instrument reversed.							
19	L.	13 0	−0.941	−0.012	+0.077	64.0	E.		+0.087	
19		13 33	−0.926	.....	.....	63.6				
22	U.	8 50	−0.640	−0.053	+0.088	61.5				
23	U.	11 51	−0.908	−0.065	+0.079	66.3				
24	U.	8 53	−1.079	−0.030	+0.082	....		*n* interpolated.	+0.087	+0.819
24		10 19	−1.058	.....	.....	71.0				+0.803
24		11 47	−1.041	−0.034	.....	68.3				+0.790
24	U.	1 37	−0.799	−0.093	.....	58.5			+0.087	
			Azimuth adjusted.							
25	U.	8 45	+0.458	−0.163	+0.097	62.8		*n* interpolated.	+0.087	−0.458
25		10 18	+0.518	.....	.....	61.2				−0.513
25		11 52	+0.538	−0.188	.....	59.0				−0.537
26	U.	8 45	+0.400	−0.111	+0.087	67.0		*n* interpolated.	+0.087	−0.381
26		10 18	+0.453	.....	.....	65.4				−0.431
26		11 47	+0.481	−0.142	.....	63.1				−0.463
27	U.	8 45	+0.320	−0.070	+0.099	70.0		*n* interpolated.	+0.087	−0.289
27		10 19	+0.330	.....	.....	67.8				−0.297
27		11 46	+0.381	−0.057	.....	65.5				−0.336
			Stellar focus and collimation adjusted.							
June 4	U.	12 35	.....	.....	+0.022	....				
			Azimuth adjusted.							
5	U.	13 10	+0.486	−0.006	+0.046	72.1		12 55—14 46	+0.041	−0.416
5		14 50	+0.563	−0.017	.....	69.9				
5	U.	1 10	+0.665	−0.060	+0.050	63.3			+0.041	
5		1 46	+0.655	.....	.....	64.8				
6	U.	13 35	+0.382	+0.010	+0.055	73.2		13 39—15 23	+0.041	−0.297
6		14 27	+0.405	+0.018	.....	71.9				
7	U.	13 5	+0.131	+0.022	+0.042	79.8		*n* interpolated.	+0.041	−0.089
7		13 48	+0.184	.....	.....	78.3				−0.131
7		14 36	+0.194	+0.012	.....	77.0				−0.138
7		16 47	+0.279	+0.029	.....	74.1				−0.205
			Object-glass tightened in cell.							
8	U.	1 12	+0.198	−0.040	+0.034	70.0			+0.041	
8		1 55	+0.167	−0.027	.....	71.1				
9	U.	13 10	+0.017	+0.006	+0.034	78.9		*n* interpolated.	+0.041	−0.011
9		13 42	−0.019	.....	.....	78.0				+0.017
9		14 35	+0.070	.....	.....	76.6				−0.052
9		15 25	+0.050	+0.006	.....	75.9				−0.036
9		16 46	+0.136	0.000	.....	73.5	E.			−0.103

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	a.	b.	c_0'.	t'.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	n.
1900		h m	s	s	s	°		h m h m	s	s
June 11	U.	13 10	−0.214	+0.022	+0.035	84.1	E.	*n* interpolated.	+0.041	+0.183
11		13 47	−0.223	.....	.....	83.8				+0.190
11		14 35	−0.196	.....	.....	82.5				+0.169
11		15 40	.....	+0.033	.....	....				+0.105
11		16 47	−0.114	+0.027	.....	79.6				
19	U.	15 17	+0.416	−0.013	+0.056	65.3		15 22—17 10	+0.041	−0.340
19		16 47	+0.409	−0.045	.....	63.1				
20	U.	13 8	+0.196	−0.002	.....	76.2		13 22—17 10	+0.041	−0.177
20		14 27	+0.209	.....	+0.070	73.8				
20		15 26	+0.247	−0.004	.....	71.8				
20		16 47	+0.257	+0.003	.....	69.8				
20	U.	1 10	+0.396	.....	.....	63.0				
20		2 0	+0.383	0.000	+0.069	64.0			+0.041	
21	U.	13 47	+0.069	+0.010	+0.078	74.2		13 23—14 46	+0.041	−0.063
21		14 35	+0.107	+0.010	.....	73.4				
22	U.	13 50	−0.034	+0.017	.....	75.8		*n* interpolated.	+0.041	+0.037
22		14 50	+0.004	.....	+0.082	73.8				+0.007
22		16 33	+0.067	.....	.....	72.0				−0.042
23	U.	13 36	−0.177	−0.005	.....	78.5		13 23—14 46	+0.041	+0.123
23		14 56	−0.149	.....	+0.065	76.6				
25	U.	15 14	−0.529	+0.012	+0.067	79.8		15 22—17 10	+0.041	+0.407
25		16 43	−0.497	+0.012	.....	79.0				
26	U.	15 26	−0.891	+0.003	+0.023	78.7		15 22—18 23	−0.006	+0.657
26		16 44	−0.857	.....	.....	77.2				
26		17 33	.....	−0.020	.....	....				
26		18 44	−0.807	.....	.....	76.0				
27	U.	15 27	−1.232	−0.001	−0.003	83.2		*n* interpolated.	−0.020	+0.959
27		16 45	−1.156	.....	.....	81.9				+0.900
27		18 40	−1.107	+0.003	−0.006	79.8				+0.862
30	U.	13 13	−0.931	+0.011	.....	76.8		*n* interpolated.	+0.005	+0.736
30		13 48	−0.919	.....	+0.032	76.0				+0.727
30		15 14	−0.883	+0.025	.....	73.3				+0.699
30		16 45	−0.764	.....	.....	70.6				+0.606
30		18 18	−0.710	+0.022	.....	68.1				+0.564
30	U.	1 13	−0.531	−0.002	+0.030	62.7			+0.005	
30		1 35	−0.546	.....	.....	62.8				
July 1	U.	15 28	−0.726	+0.033	+0.082	74.4		15 22—18 33	+0.033	+0.558
1		16 45	−0.684	.....	.....	73.0				
1		17 36	.....	+0.031	.....	....				
1		18 20	−0.665	.....	.....	71.3				
2	U.	15 18	−0.660	+0.026	+0.089	75.2		15 22—18 33	+0.019	+0.499
2		16 46	−0.603	.....	.....	73.7				
2		17 36	.....	+0.044	.....	....				
2		18 20	−0.578	.....	.....	72.0				
6	U.	15 32	−1.935	−0.110	.....	88.0				
6		17 14	.....	−0.323	+0.069	....				
6		17 46	−3.377	.....	.....	83.2				
6		17 55	.....	−0.479	.....	....				
6		18 18	−3.638	.....	.....	82.8				
6		18 40	.....	−0.570	.....	....				
		Level and azimuth adjusted.								
7	U.	15 26	−0.372	+0.085	+0.054	86.1		*n* interpolated.	+0.013	+0.343
7		17 8	−0.289	.....	.....	83.7				+0.278
7		18 9	−0.224	+0.088	.....	82.1	E.			+0.228

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	*a.*	*b.*	c_0'.	t'.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	*n.*
1900		h m	s	s	s	°		h m h m	s	s
July 8	U.	15 9	−0.082	+0.162	+0.054	87.7	E.	*n* interpolated.	+0.005	+0.161
8		16 5	−0.016	.....	.....	85.9				+0.110
8		17 13	+0.058	.....	.....	84.0				+0.052
8		17 47	.....	+0.150	.....	...				.....
8		18 15	+0.102	.....	.....	81.9				+0.018
9	U.	15 26	+0.667	+0.255	+0.040	73.9		*n* interpolated.	−0.001	−0.366
9		16 47	+0.766	.....	.....	72.0				−0.443
9		17 36	.....	+0.231	.....	....				.....
9		18 15	+0.858	.....	.....	70.2				−0.515
10	U.	15 17	+1.022	+0.305	+0.063	78.1		*n* interpolated.	+0.026	−0.594
10		16 45	+1.041	.....	.....	75.9				−0.608
10		18 14	+1.109	+0.340	.....	73.5				−0.661
11	U.	15 15	+0.954	+0.414	+0.066	84.1		*n* interpolated.	+0.026	−0.477
11		17 8	+1.047	+0.434	.....	80.9				−0.549
11		18 15	+1.079	.....	.....	79.1				−0.574
12	U.	15 26	+1.089	+0.463	+0.047	79.4				
16	U.	15 26	+1.033	+0.655	+0.059	90.2		15 22—18 33	+0.026	−0.409
16		16 26	+1.029	.....	.....	88.1				
16		17 32	.....	+0.640	.....	....				
16		18 14	+1.082	.....	.....	85.2	E.			
New reticule put in on Aug. 31. Instrument reversed.										
Oct. 11	U.	18 30	....	.....	+0.006	....	W.			
15	U.	22 45	.....	.....	+0.016	....				
17	U.	22 15	.....	+0.059	−0.015	....				
18	U.	20 40	.....	.....	+0.006	62.0				
19	U.	22 11	.....	+0.103	+0.006	50.2				
20	U.	20 45	.....	.....	−0.006	....				
20	L.	0 10	.....	.....	−0.017	....				
20		0 15	.....	.....	−0.005	....				
23	U.	1 5	.....	+0.069	.....	....				
25	U.	21 43	.....	.....	+0.005	66.7				
29	U.	0 8	.....	.....	+0.005	58.9				
30	U.	21 20	.....	.....	−0.018	....				
Nov. 9	U.	20 30	−0.187	+0.166	+0.016	48.0				
9		1 2	−0.001	+0.159	+0.005	43.7				
11	U.	1 10	−0.128	+0.165	+0.003	42.5			+0.003	
11		1 36	−0.136	.....	.....	42.3				
11	U.	13 6	−0.012	+0.168	+0.005	39.5			+0.005	
11		13 36	−0.029	.....	.....	40.5				
12	U.	1 10	−0.080	+0.157	0.000	40.1			0.000	
12		1 36	−0.063	.....	.....	41.0				
12	U.	12 20	.....	.....	−0.008	....				
13	U.	1 12	−0.217	+0.167	+0.002	47.7			+0.002	
13		1 38	−0.217	.....	.....	47.3				
13	U.	13 10	−0.081	+0.172	−0.007	40.5			−0.007	
13		13 37	−0.085	.....	.....	40.9	W.			

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	*a*.	*b*.	c_0'.	t'.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	*n*.
1900		h m	s	s	s	°		h m h m	s	s
Nov. 14	U.	1 3	−0.062	+0.169	.....	38.6	W.			
14		1 37	−0.039	.....	+0.013	38.0			+0.013	
15	U.	13 5	+0.161	+0.216	+0.003	30.5			+0.003	
15		13 33	+0.171	.....	.....	31.0				
16	U.	1 27	+0.120	+0.196	+0.006	35.3			+0.006	
21	U.	0 2	−0.714	−1.371	+0.018	67.7				
21	U.	12 40	+0.188	−1.463	+0.007	52.5				
			Level and azimuth adjusted.							
21		13 14	.....	+0.036	.....	....				
22	L.	22 50	.....	+0.191	+0.018	....				
22	U.	1 6	−0.500	+0.157	+0.017	57.0			+0.018	
22		1 35	−0.474	+0.180	.....	57.0				
27	U.	23 20	.....	+0.209	+0.014	....				
27		1 0	+0.804	+0.179	.....	45.3			+0.014	
27		1 42	+0.825	.....	.....	45.0				
29	U.	13 19	+1.271	+0.500	.....	35.4				
29		13 29	+1.265	.....	−0.001	35.3			−0.001	
			Level and azimuth adjusted.							
30	U.	22 55	.....	−0.109	−0.007	....				
30		1 0	−0.260	.....	.....	39.5			−0.007	
30		1 36	−0.258	−0.088	.....	39.0				
30		13 6	−0.098	−0.038	−0.004	32.3			−0.004	
30		13 35	−0.079	−0.046	.....	32.7				
Dec. 1	U.	0 43	−0.238	+0.029	0.000	42.7			0.000	
1		1 35	−0.232	.....	.....	42.0				
1	U.	13 8	−0.166	+0.069	−0.014	36.5			−0.012	
1		13 35	−0.157	.....	−0.010	37.3				
2	U.	0 48	−0.348	+0.127	−0.013	44.6			−0.013	
2		1 37	−0.331	.....	.....	43.7				
5	U.	0 47	−0.289	+0.024	+0.002	42.6			+0.002	
5		1 33	−0.274	.....	.....	41.9				
5	U.	12 45	.....	.....	−0.015	....				
6	U.	1 8	−0.230	+0.066	−0.006	39.0			−0.006	
6		1 41	−0.213	.....	.....	38.4				
8	U.	1 3	−0.276	+0.185	−0.004	40.0			−0.004	
8		1 35	−0.268	+0.157	.....	39.3		*n* interpolated from diagram.		+0.303
8		3 20	−0.219	.....	.....	38.0				+0.265
8		4 45	−0.174	+0.145	.....	37.2				+0.230
8		6 5	−0.164	+0.150	.....	36.6				+0.022
9	U.	12 45	+0.017	.....	.....	26.3				
9		13 35	+0.022	+0.139	0.000	26.0			0.000	
9		14 15	.....	+0.155	.....	....				
10	U.	1 34	−0.060	+0.146	−0.026	32.2		*n* interpolated from diagram.	−0.026	+0.139
10		2 45	−0.047	.....	.....	31.5				+0.129
10		3 57	−0.047	.....	.....	30.7				+0.129
10		4 45	−0.011	.....	.....	30.0				+0.101
10		5 45	+0.020	.....	.....	29.6				+0.077
10		6 25	−0.011	+0.148	.....	29.3				+0.101
11	L.	1 45	+0.011	+0.194	−0.009	31.0	W.			

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	*a*.	*b*.	c_0'.	*t'*.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	*n*.
1900		h m	s	s	s	°		h m h m	s	s
Dec. 11	U.	12 49	−0.039	.....	.....	25.5	W.			
11		13 33	0.000	+0.192	0.000	25.5			0.000	
12	L.	1 55	−0.059	+0.200	.....	34.2				
			Level and azimuth adjusted.							
13	U.	22 7	.....	−0.064	.....	....				
13		1 13	−0.068	−0.052	+0.008	49.2		*n* interpolated from diagram.	+0.008	+0.016
13		2 51	−0.055	.....	.....	47.6				+0.006
13		3 57	−0.053	.....	.....	46.8				+0.005
13		5 45	−0.034	.....	.....	44.2				−0.010
13		6 7	−0.026	−0.063	.....	43.5				−0.016
14	L.	1 43	+0.287	−0.036	−0.017	....		*n* interpolated from diagram.	−0.017	−0.250
14		2 44	+0.321	.....	.....	27.1				−0.285
14		3 28	+0.343	.....	.....	26.3				−0.309
14		4 6	+0.363	.....	.....	25.7				−0.330
14		5 8	+0.382	.....	.....	....				−0.346
14		5 33	+0.395	.....	.....	24.8				−0.368
14		6 6	+0.414	−0.106	.....	24.3				−0.387
14	U.	12 47	+0.381	.....	.....	20.5				
14		13 40	+0.395	−0.097	0.000	19.1			0.000	
15	U.	1 2	+0.320	−0.084	−0.012	26.5			−0.012	
15		1 59	+0.326	.....	.....	....				
16	U.	0 40	+0.380	−0.037	−0.010	24.9		0 51—6 19	−0.010	−0.319
16		1 41	+0.384	−0.036	.....	24.0				
16		2 42	+0.364	.....	.....	....				
16		3 28	+0.375	.....	.....	23.3				
16		4 39	+0.381	.....	.....	....				
16		6 6	+0.368	−0.052	.....	22.9				
18	L.	1 43	+0.128	+0.054	−0.006	....		1 47—6 19	−0.006	−0.098
18		2 40	+0.151	.....	.....	37.0				
18		3 27	+0.157	.....	.....	36.6				
18		4 37	+0.191	.....	.....	35.7				
18		6 5	+0.160	+0.023	.....	34.8				
18	U.	12 49	+0.206	+0.003	.....	31.0				
18		13 40	+0.199	.....	−0.003	....			−0.003	
19	U.	0 48	−0.142	+0.063	−0.005	48.4		0 51—5 22	−0.005	+0.120
19		1 33	−0.116	.....	.....	48.0				
19		3 13	−0.087	.....	.....	46.8				
19		4 38	−0.095	.....	.....	45.0				
19		6 6	−0.112	+0.066	.....	44.5				
20	U.	1 4	−0.119	+0.067	.....	43.1			−0.007	
20		1 43	−0.107	+0.048	.....	41.6		*n* interpolated from diagram.		+0 115
20		2 51	−0.090	.....	.....	39.2				+0.096
20		4 38	−0.065	.....	.....	37.3				+0.068
20		6 0	−0.023	+0.018	−0.007	35.9				+0.029
21	U.	1 13	+0.072	+0.037	+0.001	34.5			+0.001	.....
21		1 43	+0.083	.....	.....	34.0		*n* interpolated from diagram.		−0.041
21		3 3	+0.114	.....	.....	33.0				−0.065
21		4 55	+0.159	.....	.....	31.8				−0.100
21		6 0	+0.184	+0.037	.....	31.0				−0.120
28	U.	1 20	−0.144	.....	−0.005	....			−0.005	+0.200
28		1 33	−0.137	+0.145	.....	40.0				
29	U.	1 13	−0.016	+0.143	−0.028	35.3		*n* interpolated from diagram.	−0.028	+0.103
29		1 43	−0.014	.....	.....	35.0				+0.101
29		3 20	+0.040	.....	.....	33.8				+0.059
29		4 56	+0.049	.....	.....	32.5				+0.052
29		6 6	+0.064	+0.146	.....	31.7	W.			+0.041

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	*a*.	*b*.	c_0'.	*t'*.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	*n*.
1901		h m	s	s	s	°		h m h m	s	s
Jan. 3	U.	1 15	+0.078	+0.160	−0.005	27.5	W.	1 22— 2 21	−0.005	+0.049
3		1 43	+0.064	.....	.....	26.9				
3		2 38	+0.068	.....	.....	25.9				
5	L.	1 20	−0.023	+0.224	−0.012	34.4		*n* interpolated	−0.012	+0.154
5		2 40	−0.002	.....	.....	33.1		from diagram.		+0.137
5		3 33	+0.028	.....	.....	32.0				+0.114
5		4 55	+0.032	.....	.....	30.8				+0.111
5		5 56	+0.013	+0.207	.....	25.5				+0.125
8	L.	1 56	−0.199	+0.273	0.000	40.0		1 47— 4 58	0.000	+0.316
8		2 35	−0.199	.....	.....	39.6				
8		3 32	−0.221	.....	.....	38.8				
8		5 5	−0.161	+0.251	.....	38.0				
9	U.	1 7	−0.632	+0.345	−0.013	52.8			−0.013	
9		1 51	−0.636	+0.357	.....	52.0				
			Level adjusted.							
13	U.	1 10	−0.337	−0.116	−0.002	38.0		*n* interpolated	−0.002	+0.194
13		2 17	−0.285	.....	.....	36.9		from diagram.		+0.153
13		3 32	−0.260	.....	.....	35.8				+0.134
13		4 53	−0.253	.....	.....	35.0				+0.128
13		5 56	−0.217	−0.102	.....	33.9				+0.100
15	L.	1 0	−0.606	−0.040	−0.005	51.0		1 23— 6 19	−0.005	+0.445
15		1 44	−0.619	.....	.....	....				
15		3 13	−0.621	.....	.....	50.0				
15		3 58	−0.637	.....	.....	49.4				
15		5 0	−0.595	.....	.....	48.0				
15		5 56	−0.595	−0.062	.....	47.0				
16	U.	1 8	−0.941	−0.004	−0.020	57.2		*n* interpolated	−0.016	+0.723
16		1 54	−0.973	.....	.....	57.0		from diagram.		+0.748
16		3 12	−0.941	.....	.....	56.1				+0.723
16		4 54	−0.874	.....	.....	53.8				+0.671
16		6 4	−0.848	−0.023	−0.013	52.0				+0.651
								1 23— 6 19	−0.010	+0.012
18	U.	1 12	−0.128	−0.109	−0.010	27.8				
18		2 18	−0.090	.....	.....	26.9				
18		3 34	−0.060	.....	.....	25.7				
18		5 10	−0.018	.....	.....	24.6				
18		6 0	+0.015	+0.036	.....	24.0				
19	L.	1 10	−0.051	−0.087	+0.016	23.8		1 23— 6 19	+0.016	−0.010
19		1 53	−0.059	.....	.....	23.0				
19		2 37	−0.064	.....	.....	22.0				
19		3 34	−0.042	.....	.....	21.7				
19		4 55	−0.055	.....	.....	23.0				
19		6 5	−0.059	−0.085	.....	19.3				
20	U.	1 7	−0.148	−0.032	−0.023	30.9		*n* interpolated	−0.022	+0.087
20		1 52	−0.190	.....	.....	30.4		from diagram.		+0.120
20		3 34	−0.228	.....	.....	31.3				+0.149
20		4 53	−0.260	.....	.....	31.2				+0.174
20		6 5	−0.281	−0.058	−0.020	31.0				+0.190
22	U.	1 15	−0.508	....	.....	42.1		*n* interpolated	+0.001	+0.364
22		1 42	−0.516	−0.052	+0.001	41.7		from diagram.		+0.371
22		3 33	−0.474	.....	.....	....				+0.338
22		4 52	−0.441	−0.046	.....	38.8				+0.312
26	L.	2 32	−0.097	−0.009	−0.031	31.8		1 47— 3 22	−0.028	+0.083
26		3 30	−0.123	+0.001	−0.025	31.0				
28	U.	3 34	−0.130	−0.024	.....	30.2		3 21— 6 17	−0.020	+0.088
28		4 44	−0.124	.....	−0.020	30.0				
28		6 6	−0.134	−0.014	.....	28.6	W.			

TABLE III.—*Record of Constants a, b, c, and n*—Continued.

Date.	Obs'r.	Sidereal Time.	*a*.	*b*.	c_0'.	t'.	Clamp.	Sidereal Time.	Adopted.	
									c_0'.	*n*.
1901		h m	s	s	s	°		h m h m	s	s
Jan. 29	U.	2 20	—0.231	+0.067	—0.042	33.7	W.	2 22— 6 19	—0.039	+0.222
29		4 17	—0.267	.....	—0.036	32.0				
29		5 11	—0.269	.....	.....	31.1				
29		6 7	—0.264	+0.009	.....	30.4				
Feb. 19	U.	21 33	.....	—0.014	.....	....				
23	U.	11 51	+0.034	+0.123	—0.042	20.1		11 25—13 40	—0.038	+0.039
23		12 49	+0.044	.....	.....	19.8				
23		13 43	+0.058	+0.113	—0.033	18.8				
24	U.	1 10	--0.018	.....	.....	27.3				
24		1 32	—0.062	+0.148	—0.046	28.0			—0.046	
25	U.	11 20	—0.247	+0.178	—0.048	31.3		11 25—13 34	—0.048	+0.301
25		12 50	—0.249	.....	.....	31.3				
25		13 38	—0.263	+0.152	.....	30.1				
26	U.	11 50	—0.226	+0.135	—0.033	32.2		11 25—13 40	—0.042	+0.234
26		12 49	—0.194	.....	.....	30.9				
26		13 42	—0.180	+0.114	—0.050	26.2				
28	U.	11 29	—0.200	+0.124	—0.050	29.0		11 25—13 40	—0.050	+0.235
28		12 37	—0.183	.....	.....	28.2				
28		13 43	—0.189	+0.150	.....	28.0				
Mar. 2	U.	11 44	—0.674	+0.168	—0.042	41.5		*n* interpolated.	—0.042	+0.631
2		12 49	—0.611	.....	.....	41.0				+0.581
2		13 43	—0.594	+0.171	.....	40.5				+0.569
5	U.	11 21	—0.190	+0.041	—0.042	23.9		*n* interpolated.	—0.044	+0.177
5		12 50	—0.102	.....	.....	21.4				+0.108
5		13 37	—0.089	+0.052	—0.045	20.5				+0.098
6	U.	11 21	+0.001	+0.144	—0.047	16.5		11 25—13 37	—0.047	+0.071
6		12 37	+0.028	.....	.....	16.9				
6		13 40	+0.012	+0.116	—0.068	15.5				
7	U.	11 18	—0.277	+0.179	—0.048	30.0		11 25—13 37	—0.047	+0.341
7		12 38	—0.269	.....	.....	29.2				
7		13 40	—0.312	+0.196	—0.046	30.0				
8	U.	1 10	-0.423	+0.174	—0.058	45.2			—0.058	
8		1 32	—0.466	.....	.....	46.7				
12	U.	0 49	—0.165	—0.626	—0.065	49.0		1 4— 3 39	—0.065	—0.134
12		1 33	- -0.236	.....	.....	51.2				
12		3 30	—0.302	—0.587	.....	55.2				
15	U.	0 58	+0.205	—0.424	.....	46.4		1 4— 3 25	—0.045	—0.346
15		1 35	+0.195	.....	—0.045	48.0				
15		3 12	+0.102	—0.424	.....	50.6	W.			

TABLE IV.—*Nadir-Points of the Circles.*

Date.	Obs'r.	Sid. Time.	Circle A.	Reader.	Circle B.	Reader.	Temp.*	Clamp.
1900		h m	° ′ ″		° ′ ″		°	
Feb. 13	U.	4 50	141 3 47.80	U.			43.0	E.
13		6 30	48.22				40.0	
14	U.	4 30	141 3 52.10	U.			38.7	
14		4 43	52.40				....	
14		6 35	52.62				37.1	
15	L.	4 35	141 3 55.18	L.			44.0	
15	U.	4 40	141 3 54.36	U.			....	
15		6 16	53.66				43.2	
			Microscopes adjusted.					
18	U.	4 55	141 3 59.16	U.			17.8	
18		6 30	59.60				16.8	
19	L.	2 15	141 4 0.75	L.			25.8	
19	U.	4 45	141 4 1.00	U.			21.7	
19		6 32	1.05				21.2	
19	L.	13 38	141 4 1.16	L.			17.7	
			Microscopes adjusted.					
20	U.	4 45	141 4 1.68	U.			30.0	
20		6 20	1.30				28.4	
			Microscopes adjusted.					
23	U.	4 45	141 3 53.32	U.			42.3	
23		5 20	53.79				40.3	
23	L.	11 45	141 3 54.41	L.			33.8	
23		13 50	54.34				....	
25	U.	4 50	141 3 56.48	U.			17.0	
25		6 28	56.62				16.2	
26	U.	4 45	141 3 57.90	U.			20.9	
26		6 23	58.91				22.0	
26		6 37	59.06				19.0	
27	L.	0 50	141 4 1.94	L.			....	
27		2 20	1.71				26.0	
27	U.	4 45	141 4 1.54	U.			21.0	
27		6 25	2.42				18.7	
			Microscopes adjusted.					
Mar. 2	U.	4 40	141 3 56.15	U.			37.1	
2		6 23	56.41				35.0	
2		7 35	56.32				34.0	
2		8 54	56.06				33.0	
3	L.	0 40	141 3 56.84	L.			42.0	
3		2 0	57.65				40.1	
3	U.	4 40	141 3 56.35	U.			40.3	
3		6 25	56.32				36.3	
3		7 35	56.42				35.2	
3		8 40	56.35				34.2	
3	L.	12 20	141 3 56.95	L.			32.0	
3		13 40	57.18				31.0	
5	U.	4 50	141 3 58.15	U.			45.0	
5		6 25	58.35				41.6	
5		7 34	58.61				45.0	
7	L.	0 50	141 3 60.22	L.			45.8	
7		1 55	59.86				45.0	E.

*Read from a thermometer, GREEN No. 3920, suspended near the east microscope bearer.

TABLE IV.—*Nadir-Points of the Circles*—Continued.

Date.	Obs'r.	Sid. Time.	Circle A.	Reader.	Circle B.	Reader.	Temp.	Clamp.
1900		h m	° ′ ″		° ′ ″		°	
Mar. 7	U.	4 45	141 3 59.38	U.			43.0	E.
7		6 25	59.29				40.8	
7		7 30	59.60				38.4	
7		8 47	59.34				40.0	
7	L.	13 0	141 4 0.11	L.			34.0	
			Microscopes adjusted.					
9	U.	7 35	141 3 59.91	U.			44.0	
9		8 32	59.98				42.9	
12	L.	1 15	141 4 2.38	L.	180 0 1.24	L.	25.7	
12		1 37	2.47		0.88		26.0	
12	U.	7 25	141 4 1.80	U.	180 0 1.36	L.	25.1	
12		8 45	1.56		2.14		23.3	
14	L.	0 55	141 4 2.00	L.	180 0 0.72	L.	45.8	
14		1 40	2.08		0.25		47.0	
16	U.	1 10	141 4 2.26	U.	180 0 0.15	U.	35.0	
16	L.	7 26	141 4 2.89	U.	179 59 59.88	L.	26.3	
16		9 8	3.80		59.16		23.0	
16	L.	12 59	141 4 3.54	L.	179 59 57.91	L.	19.6	
16		13 45	4.81		58.62		21.0	
17	L.	7 28	141 4 3.58	U.	179 59 57.89	L.	18.4	
17		9 8	4.02		57.40		17.1	
			Microscopes adjusted on both circles.					
19	L.	.. ..	141 4 5.96	U.	179 59	.	....	
19		.. ..	5.98		.....		....	
19		.. ..	5.98		.....		....	
19		.. ..	6.40		.....		....	
20	L.	7 27	141 4 5.66	L.	179 59	.	48.0	
21	L.	7 4	141 4 5.25	U.	179 59 57.14	L.	33.1	
21		9 8	5.15		58.04		31.1	
			Microscopes adjusted on both circles.					
24	L.	7 25	141 4 3.58	U.	179 59 56.28	L.	44.0	
24		9 20	3.88		56.32		39.7	
27	L.	0 56	141 4 4.50	L.	179 59 55.10	L.	50.0	
27		1 35	3.97		55.41		51.0	
27	L.	7 10	141 4 4.18	L.	179 59	.	45.5	
27		9 15	4.21		.....		42.8	
			Microscopes adjusted on Circle B.					
28	U.	7 20	141 4 4.12	L.	179 59 57.74	U.	43.3	
28		9 10	4.45		57.54		40.3	
28	L.	12 55	141 4 4.30	L.	179 59 58.15	L.	38.5	
28		14 0	4.33		58.50		38.0	
30	U.	12 55	141 4 4.40	U.	179 59 57.70	U.	33.5	
30		13 55	4.81		57.49		33.7	
31	U.	0 55	141 4 4.86	U.	179 59 57.06	U.	42.3	
Mar. 31	U.	7 15	141 4 4.85	L.	179 59 57.52	U.	41.2	
31		9 10	4.80		57.46		38.0	
Apr. 1	U.	7 20	141 4 4.70	U.	179 59		51.3	
1		8 47	5.16		.....		49.0	E.

TABLE IV.—*Nadir-Points of the Circles*—Continued.

Date.	Obs'r.	Sid. Time.	Circle A.	Reader.	Circle B.	Reader.	Temp.	Clamp.
1900		h m	° ′ ″		° ′ ″		°	
Apr. 3	L.	7 20	141 4 4.72	U.	179 59 56.78	L.	51.8	E.
3		8 50	4.58		57.21		49.0	E.
Instrument reversed. Circle A changed to read declinations.								
5	U.	7 30	218 54 43.94	U.	180 0		53.1	W.
5		8 45	43.60		13.44	L.	50.0	
5		10 30	43.28		13.95		....	
5		11 55	43.54		13.76		49.0	
Microscopes adjusted on Circle B.								
7	L.	8 37	218 54 44.68	U.	180 0 13.88	L.	59.8	
7		10 34	44.90		12.65		58.3	
7		11 55	44.74		12.95		57.6	
Microscopes adjusted on Circle B.								
9	U.	8 30	218 54 46.82	L.	180 0 15.15	U.	47.5	
9		10 30	47.42		14.68		....	
9		11 58	47.30		14.68		42.0	
9	U.	12 48	218 54 47.28	U.	180 0 14.73	U.	41.7	
9	U.	0 45	218 54 48.05	U.	180 0 14.48	U.	42.5	
10	U.	8 35	218 54 48.12	L.	180 0 14.78	U.	43.5	
10		10 30	47.95		14.22		....	
10		11 55	48.45		14.19		40.0	
14	U.	8 35	218 54 49.56	L.	180 0 13.06	U.	49.8	
14		10 30	49.26		12.88		....	
14		11 55	49.05		12.74		44.0	W.
Instrument reversed.								
19	L.	12 30	218 54 59.14	L.	180 0 3.41	L.	60.0	E.
19		13 50	59.06		3.55		61.8	
22	U.	8 43	218 54 57.57	U.	180 0		62.8	
23	U.	11 25	218 54 58.02	U.	180 0		64.1	
24	U.	8 45	218 54 57.56	L.	180 0 4.28	U.	72.8	
24		10 30	58.40		4.72		66.3	
24		11 53	58.02		5.15		65.0	
24	U.	0 55	218 54 58.28	U.	180 0 5.41	U.	59.8	
25	U.	8 40	218 54 57.81	L.	180 0 4.59	U.	62.0	
25		10 30	58.85		4.28		....	
25		12 0	58.66		4.38		....	
Microscopes adjusted on both circles.								
26	U.	8 40	218 54 55.68	L.	180 0 3.32	U.	67.2	
26		10 30	56.00		3.87		....	
26		11 55	55.74		4.08		60.0	
Microscopes adjusted on both circles.								
27	U.	8 35	218 54 53.69	L.	180 0 2.90	U.	70.0	
27		10 30	53.64		3.10		....	
27		11 55	53.56		3.62		....	
Circle B changed to read declinations.								
28	L.	11 17	218 54 53.51	Br.	218 55 8.94	L.	65.0	
May 2	L.	11 25	218 54 55.68	L.	218 55		64.0	
Microscopes adjusted on Circle B.								
June 4	U.	11 10	218 55 5.66	L.	218 54 52.84	U.	71.5	
Microscopes adjusted on both circles.								
5	U.	13 5	218 55 0.58	L.	218 54 58.99	U.	69.8	
5		14 35	0.70		59.56		65.3	E.

TABLE IV.—*Nadir-Points of the Circles*—Continued.

Date.	Obs'r.	Sid. Time.	Circle A.	Reader.	Circle B.	Reader.	Temp.	Clamp.
1900		h m	° ′ ″		° ′ ″		°	
June 5	U.	1 40	218 54 59.65	U.	218 55 0.48	U.	70.0	E.
			Microscopes adjusted on Circle B.					
6	U.	13 25	218 55 0.89	L.	218 55 0.38	U.	70.2	
6		15 15	1.08		0.57		66.9	
7	U.	13 30	218 55 0.81	L.	218 54 59.06	U.	76.5	
7		15 10	1.42		59.38		72.3	
7		16 55	1.55		59.56		....	
8	U.	1 40	218 55 0.74	U.	218 54 58.79	U.	73.0	
9	U.	13 30	218 55 0.65	L.	218 54 59.12	U.	75.0	
9		15 5	1.02		59.30		73.1	
9		16 55	0.68		60.24		68.9	
			Microscopes adjusted on Circle B.					
11	U.	13 30	218 55 1.04	L.	218 54 52.40	U.	81.0	
11		15 0	1.60		52.92		78.4	
11		16 55	1.78		53.48		75.0	
19	U.	15 8	218 55 4.78	Hd.	218 54 51.30	U.	60.0	
19		17 25	3.26		53.39		59.5	
20	U.	13 33	218 55 3.36	Hd.	218 54 52.02	U.	71.0	
20		15 7	3.22		52.45		67.0	
20		16 58	3.27		53.18		65.5	
20	U.	1 37	218 55 2.76	U.	218 54 52.81	U.	67.0	
21	U.	13 30	218 55 3.87	L.	218 54 51.22	U.	71.0	
21		15 10	4.07		51.59		68.4	
22	U.	13 32	218 55 4.18	Hd.	218 54 50.72	U.	72.5	
22		15 8	4.52		50.90		70.2	
23	U.	13 32	218 55 4.26	Hd.	218 54 50.79	U.	75.2	
23		14 39	4.14		50.74		74.0	
25	U.	15 8	218 55 4.32	Hd.	218 54 49.31	U.	78.0	
25		16 56	4.15		50.00		76.8	
26	U.	15 5	218 55 4.35	Hd.	218 54 48.00	U.	74.7	
26		16 58	4.45		48.01		73.6	
26		18 27	4.36		48.28		74.5	
			Microscopes adjusted on Circle B.					
27	U.	15 10	218 55	....	218 54 50.46	U.	81.0	
27		16 57	....		50.83		79.0	
27		18 30	....		51.32		76.6	
29	U.	15 15	218 55	....	218 54 51.78	U.	81.0	
30	U.	13 35	218 55 2.89	U.	218 54 53.31	U.	71.0	
30	U.	15 5	218 55	....	218 54 54.00	U.	69.0	
30		16 57	....		54.60		66.5	
30		18 44	....		54.92		64.3	
30	U.	1 48	218 55 2.59	U.	218 54 54.32	U.	64.0	
July 1	U.	15 12	218 55	....	218 54 54.50	U.	71.3	
1		16 55	....		55.55		....	
1		18 30	....		56.02		....	
1		18 40	....		55.98		68.0	
2	U.	15 8	218 55 1.79	Hd.	218 54 55.00	U.	72.3	
2		16 57	2.03		55.86		70.0	
2		18 27	2.18		55.62		69.1	
3	U.	15 11	218 55 2.24	Hd.	218 54 53.95	U.	82.0	E.

TABLE IV.—*Nadir-Points of the Circles*—Continued.

Date.	Obs'r.	Sid. Time.	Circle A.	Reader.	Circle B.	Reader.	Temp.	Clamp.
1900		h m	° ′ ″		° ′ ″		°	
July 6	U.	15 42	218 54 61.17	Hd.	218 54 51.42	U.	82.0	E.
6		16 58	54.30		53.51		79.5	
6		18 27	49.55		53.91		78.0	
Microscopes adjusted on both circles.								
7	U.	15 10	218 54 53.98	Hd.	218 55 7.64	U.	81.4	
7		16 58	53.90		8.35		78.8	
7		18 4	54.22		7.85		77.5	
8	U.	15 23	218 54 55.35	Hd.	218 55 8.15	U.	82.3	
8		16 57	55.11		9.26		79.1	
8		17 35	55.29		8.93		76.8	
8		18 28	55.12		9.86		76.8	
9	U.	15 10	218 54 57.89	Hd.	218 55 8.72	U.	70.5	
9		16 55	57.02		10.35		67.0	
9		18 27	56.54		11.18		....	
10	U.	15 8	218 54 58.08	Hd.	218 55 9.31	U.	75.5	
10		16 58	58.52		9.64		....	
10		18 28	58.40		9.78		70.0	
11	U.	15 6	218 54 59.48	Hd.	218 55 8.55	U.	81.5	
11		16 58	59.94		8.68		77.0	
11		18 28	60.46		9.05		75.2	
12	U.	15 15	218 55	....	218 55 7.81	U.	73.0	
16	U.	15 15	218 55 4.12	Hd.	218 55 5.75	U.	87.0	
16		16 58	4.72		6.16		83.0	
16		18 27	4.70		6.72	U.	81.3	E.
Instrument dismounted and reversed.								
Dec. 8	U.	0 35	218 54 53.53	U.	218 55 3.19	U.	37.5	W.
8		1 43	52.95	L.	3.95		37.0	
8		3 12	53.60		3.30		....	
8		4 32	54.44		3.16		....	
8		6 21	53.92		3.34		35.0	
9	U.	13 5	218 54 53.61	U.	218 55 3.37	U.	24.0	
Microscopes adjusted on Circle A.								
10	U.	1 40	218 54 52.46	La.	218 55 3.44	U.	30.0	
10		4 3	52.99		2.74		30.5	
10		6 33	53.78		2.74		28.0	
11	L.	1 38	218 54 52.50	La.	218 55 3.02	L.	29.1	
11	U.	13 8	218 54 53.55	U.	218 55 1.95	U.	25.6	
12	L.	1 40	218 54	....	218 55 3.84	L.	34.5	
Microscopes adjusted on both circles.								
13	U.	1 40	218 55 21.31	La.	218 54 49.78	U.	47.0	
13		4 7	21.40		49.98		....	
13		6 32	21.08		50.80		40.0	
Microscopes probably adjusted on both circles.								
14	L.	1 32	218 55 6.68	La.	218 54 47.24	L.	28.3	
14		4 25	6.35		47.68		22.0	
14		6 34	6.00		47.18		22.0	
14	U.	13 10	218 55 6.28	U.	218 54 47.20	U.	15.4	
Microscopes adjusted on Circle B.								
15	U.	1 40	218 55 8.12	La.	218 54 45.76	U.	25.0	
16	U.	1 10	218 55 8.61	U.	218 54 45.90	U.	22.8	
16		1 35	8.48	L.	45.48		23.0	
16		4 20	7.99		46.10		22.0	
16		6 35	7.08		46.32		20.2	W.

TABLE IV.—*Nadir-Points of the Circles*—Continued.

Date.	Obs'r.	Sid. Time.	Circle A.	Reader.	Circle B.	Reader.	Temp.	Clamp.
1900		h m	° ′ ″		° ′ ″		°	
Dec. 18	L.	1 35	218 55 6.00	La.	218 54 45.76	L.	37.0	W.
18		4 10	6.38		46.08		33.0	
18		6 30	6.90		46.05		33.0	
18	U.	13 48	218 55 6.88	U.	218 54 45.84	U.	32.1	
			Microscopes adjusted on both circles.					
19	U.	0 38	218 55 6.75	U.	218 54 45.00	U.	47.9	
19		1 40	6.20	La.	45.34		....	
19		4 30	6.70		45.45		45.0	
19		6 28	6.94		45.44		41.5	
20	U.	1 10	218 55 8.40	U.	218 54 44.75	U.	...	
20		1 37	7.76	La.	44.88		37.6	
20		4 30	8.62		44.62		34.0	
20		6 25	8.51		44.42		32.4	
21	U.	1 39	218 55 7.46	La.	218 54 45.65	U.	32.0	
21		3 16	8.02		45.37		29.3	
21		6 25	8.22		45.71		28.1	
28	U.	1 40	218 55 9.82	La.	218 54 44.60	U.	40.0	
29	U.	1 37	218 55 8.91	La.	218 54 44.98	U.	33.0	
29		4 8	9.16		45.32		31.0	
29		6 29	9.22		45.12		29.2	
1901 Jan. 3	U.	1 35	218 55 10.88	La.	218 54 43.16	U.	24.0	
3		2 40	10.57		43.54		22.5	
5	L.	1 39	218 55 9.08	La.	218 54 44.24	L.	34.0	
5		4 15	8.66		44.62		28.0	
5		6 29	8.62		43.90		25.0	
8	L.	1 43	218 55 9.58	La.	218 54 43.19	L.	40.0	
8		4 13	9.62		43.10		....	
8		5 15	9.64		43.16		38.0	
9	U.	1 31	218 55 9.94	L.	218 54 41.69	U.	49.5	
13	U.	1 35	218 55 8.85	L.	218 54 43.08	U.	35.2	
13		4 9	9.27		43.30		33.0	
13		6 25	9.68		42.98		....	
15	L.	1 35	218 55 9.08	La.	218 54 42.32	L.	52.0	
15		4 24	9.82		42.05		....	
15		6 26	9.72		42.36		44.0	
16	U.	1 35	218 55 9.62	L.	218 54 41.88	U.	58.0	
16		4 23	9.87		42.20		52.1	
16		6 24	10.60		41.95		48.9	
18	U.	1 40	218 55 10.13	La.	218 54 42.55		....	
18		4 39	10.32		42.95		22.0	
18		6 26	11.52		42.86		21.2	
19	L.	1 40	218 55 10.74	La.	218 54 42.02	L.	20.0	
19		4 37	10.40		42.28		17.5	
19		6 25	10.34		41.99		16.2	
20	U.	1 35	218 55 10.10	L.	218 54 41.12	U.	32.8	
20		4 35	9.58		41.45		31.2	
20		6 24	9.68		41.24		31.9	
22	U.	1 33	218 55 9.88	L.	218 54 41.52	U.	40.0	
22		4 20	9.76		41.64		37.0	
26	L.	1 45	218 55 10.65	La.	218 54 42.22	L.	30.0	
26		3 41	10.94		41.84		31.0	W.

TABLE IV.—*Nadir-Points of the Circles*—Continued.

Date.	Obs'r.	Sid. Time.	Circle A.	Reader.	Circle B.	Reader.	Temp.	Clamp.
1901		h m	° ′ ″		° ′ ″		°	
Jan. 28	U.	3 17	218 55 10.56	La.	218 54 41.68	U.	29.8	W.
28		6 36	10.49		42.30		27.0	
29	U.	2 9	218 55 11.04	La.	218 54 41.35	U.	33.0	
29		4 5	10.66		41.60		29.2	
29		6 29	10.57		41.40		28.2	
Feb. 23	U.	11 40	218 55 11.14	La.	218 54 41.69	U.	18.3	
23		13 51	11.04		42.56		16.0	
24	U.	1 45	218 55 11.16	U.	218 54 41.30	U.	32.0	
25	U.	11 40	218 55 10.65	La.	218 54 41.30	U.	31.8	
25		13 46	9.94		41.20		30.0	
26	U.	11 39	218 55 10.53	La.	218 54 42.00	U.	29.0	
26		13 50	9.78		42.06		26.2	
28	U.	11 40	218 55 11.26	La.	218 54 40.78	U.	27.0	
28		13 48	11.30		40.55		28.0	
Mar. 2	U.	11 38	218 55 10.55	La.	218 54 40.45	U.	40.0	
2		13 49	10.92		40.97		38.9	
5	U.	11 40	218 55 10.12	La.	218 54 42.02	U.	18.0	
5		13 45	9.52		42.61		16.1	
6	U.	11 39	218 55 10.36	La.	218 54 41.52	U.	13.2	
6		13 50	10.06		42.12		14.0	
7	U.	11 40	218 55 9.61	La.	218 54 40.76	U.	30.1	
7		13 45	9.45		41.01		28.5	
8	U.	1 37	218 55 7.83	U.	218 54 41.46	U.	55.3	
12	U.	1 40	218 55 0.04	U.	218 54 53.78	U.	61.0	
15	U.	1 40	218 55 1.06	U.	218 54 55.50	U.	55.5	W.

SIX-INCH TRANSIT CIRCLE.

OBSERVATIONS AND REDUCTIONS.

1900 FEBRUARY 13. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ι Tauri	9	57 56.45	−0.62	**−46.50**	4 57 9.34	−2.25	338 31 49.25	....	18.4	+21 26 52.4	....	−1.2
2	*n* Tauri	9	14 5.58	0.64	**46.49**	5 13 18.44	2.36	337 59 5.48	....	17.9	21 59 36.7	....	−0.5
3	Lal. 10107	9	20 3.25	0.60	46.50	5 19 16.15	2.36	339 29 7.65	....	19.7	20 29 32.8	....	+0.3
4	W. B.$_2$ V. 541	9	22 40.98	0.68	46.50	5 21 53.80	2.43	336 46 9.58	....	16.6	23 12 33.9	....	−0.4
5	W. B.$_2$ V. 618	9	24 58.34	−0.62	−46.50	5 24 11.22	−2.40	338 40 35.90	....	18.8	+21 18 5.4	....	+0.3
6	Mayer 219	8	28 31.66	−0.60	−46.50	5 27 44.56	−2.41	339 34 29.68	....	19.9	+20 24 10.5	....	+0.8
7	ζ Tauri	9	32 29.63	0.62	**46.50**	5 31 42.51	2.43	338 53 49.82	....	19.1	21 4 51.2	....	1.0
8	Piazzi V. 184	9	36 50.90	0.66	46.50	5 36 3.74	2.49	337 22 7.42	....	17.4	22 36 35.3	....	0.6
9	Lal. 10891	9	42 2.32	0.65	46.51	5 41 15.16	2.51	337 29 15.05	....	17.6	22 29 27.5	....	1.0
10	Lal. 11062	9	46 35.51	−0.68	−46.51	5 45 48.32	−2.55	336 37 22.50	....	16.6	+23 21 21.0	....	+1.0
11	χ^1 Orionis	9	49 17.22	−0.59	−46.51	5 48 30.12	−2.51	339 43 15.78	....	20.2	+20 15 24.2	....	+2.1
12	W. B.$_2$ V. 1652	9	53 47.34	0.60	46.51	5 53 0.23	2.54	339 18 41.02	....	19.7	20 39 59.4	....	2.2
13	1 Geminorum	9	58 52.35	0.68	**46.56**	5 58 5.16	2.61	336 42 39.10	....	16.7	23 16 4.3	....	1.7
14	3 Geminorum	9	4 29.48	0.67	**46.48**	6 3 42.30	2.64	336 50 57.05	....	16.9	23 7 46.1	....	2.1
15	η Geminorum	9	9 40.32	−0.66	**−46.50**	6 8 53.15	−2.65	337 26 36.35	....	17.6	+22 32 6.2	....	+2.7

1900 FEBRUARY 14. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

16	ι Tauri	9	57 56.34	−0.83	**−46.20**	4 57 9.29	−2.23	338 31 54.22	....	19.0	+21 26 51.1	....	−1.2
17	108 Tauri	9	10 16.41	0.86	**46.24**	5 9 29.33	2.32	337 48 32.55	....	18.2	22 10 13.6	....	0.8
18	*n* Tauri	9	14 5.51	0.85	**46.23**	5 13 18.44	2.34	337 59 9.72	....	18.3	21 59 36.2	....	−0.5
19	Lal. 10107	9	20 3.04	0.80	46.22	5 19 16.02	2.35	339 29 11.82	....	20.1	20 29 32.4	....	+0.3
20	W. B.$_2$ V. 541	9	22 40.97	−0.90	−46.22	5 21 53.85	−2.41	336 46 14.10	....	16.9	+23 12 33.3	....	−0.5
21	W. B.$_2$ V. 618	8	24 58.25	−0.83	−46.22	5 24 11.20	−2.39	338 40 40.18	....	19.1	+21 18 5.0	....	+0.3
22	Mayer 219	9	28 31.54	0.79	46.22	5 27 44.53	2.39	339 34 33.20	....	20.2	20 24 10.9	....	0.8
23	ζ Tauri	9	32 29.52	0.82	**46.20**	5 31 42.48	2.42	338 53 52.50	....	19.4	21 4 52.4	....	1.0
24	Piazzi V. 184	9	36 50.77	0.88	46.22	5 36 3.67	2.47	337 22 11.58	....	17.6	22 36 35.1	....	0.6
25	Lal. 10891	9	42 2.27	0.87	46.22	5 41 15.18	2.50	337 29 19.70	....	17.7	22 29 26.9	....	0.9
26	Lal. 11062	9	46 35.42	−0.91	−46.23	5 45 48.28	−2.54	336 37 26.62	....	16.8	+23 21 20.9	....	+0.9
27	χ^1 Orionis	9	49 17.14	−0.79	−46.23	5 48 30.12	−2.49	339 43 19.08	....	20.3	+20 15 24.9	....	+2.0
28	W. B.$_2$ V. 1652	9	53 47.24	0.80	46.23	5 53 0.21	2.52	339 18 45.92	....	19.8	20 39 58.6	....	2.2
29	1 Geminorum	9	58 52.24	0.90	**46.25**	5 58 5.11	2.59	336 42 41.65	....	16.8	23 16 5.8	....	1.7
30	3 Geminorum	9	4 29.45	0.90	**46.24**	6 3 42.32	2.62	336 51 1.78	....	17.0	23 7 45.5	....	2.1
31	η Geminorum	9	9 40.22	−0.88	**−46.20**	6 8 53.11	−2.63	337 26 39.85	....	17.6	+22 32 6.8	....	+2.7

1900 FEBRUARY 15. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

32	ι Tauri	9	57 56.36	−0.75	**−46.31**	4 57 9.34	−2.22	338 31 57.05	....	18.3	+21 26 50.1	....	−1.2
33	108 Tauri	9	10 16.33	0.78	**46.26**	5 9 29.29	2.30	337 48 33.70	....	17.6	22 10 14.4	....	0.8
34	*n* Tauri	9	14 5.40	0.77	**46.21**	5 13 18.37	2.33	337 59 11.30	....	17.7	21 59 36.6	....	−0.5
35	Lal. 10107	9	20 3.07	0.72	46.26	5 19 16.09	2.33	339 29 13.20	....	19.4	20 29 33.1	....	+0.3
36	Mayer 219	9	28 31.52	0.72	46.25	5 27 44.55	2.38	339 34 35.18	....	19.5	20 24 11.0	....	0.8
37	ζ Tauri	9	32 29.48	−0.74	**−46.26**	5 31 42.49	−2.40	338 53 53.80	....	18.8	+21 4 53.2	....	+0.9

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
13 4 20	74.90	8.2	42.9
4 55	75.35	7.0	41.7
5 35	76.45	6.2	40.3
6 12	76.85	5.2	39.9
14 4 55	77.20	4.8	38.6
5 36	77.00	3.9	37.8
6 0	76.55	5.6	37.1
15 5 7	75.43	7.9	43.9

Bisections are made at IV, except as noted below.

Adopted Equator Point Corrections.

		″
1–15, from stars		+59.9
16–31, from stars		+55.7
32–37, from stars	5h 6m	+54.43
	6 4	+53.97

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	
1	+61.4	....
2	60.8	....
7	58.4	....
13	58.4	....
14	60.6	....
15	59.7	....
16	55.9	....
17	54.9	....
18	56.1	....
23	55.4	....
29	55.7	....
30	55.8	....
31	56.1	....
32	53.7	....
33	54.4	....
34	55.2	....
37	+54.6	....

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Piazzi V. 184	9	36 50.77	− 0.80	−46.25	5 36 3.72	−2.46	337 21 12.45	....	17.1	+22 36 36.3	....	+0.6
2	Piazzi V. 192	6	38 4.67	0.81	46.25	5 37 17.61	2.48	336 49 24.32	....	16.5	23 9 25.0	....	0.5
3	Lal. 10891	9	42 2.19	0.79	46.24	5 41 15.16	2.48	337 29 20.78	....	17.2	22 29 27.8	....	0.9
4	Lal. 11062	9	46 35.39	0.82	46.24	5 45 48.33	2.52	336 37 28.30	....	16.3	23 21 21.3	....	0.9
5	χ¹ Orionis	9	49 17.04	− 0.71	−46.24	5 48 30.09	−2.48	339 43 20.18	....	19.7	+20 15 26.0	....	+2.0
6	Anonymous	6	53 38.40	− 0.73	−46.24	5 52 51.43	−2.51	339 19 30.92	....	19.2	+20 39 15.7	....	+2.2
7	140 Tauri	9	55 14.14	0.80	46.24	5 54 27.10	2.56	337 5 12.58	....	16.8	22 53 36.6	....	1.6
8	1 Geminorum	9	58 52.13	0.82	**46.28**	5 58 5.07	2.58	336 42 43.38	....	16.4	23 16 6.3	....	1.7
9	3 Geminorum	9	4 29.36	0.81	**46.28**	6 3 42.32	2.63	336 51 4.25	....	16.5	23 7 45.2	....	2.1
10	η Geminorum	9	9 40.16	− 0.79	−**46.24**	6 8 53.14	−2.62	337 26 42.70	....	17.2	+22 32 6.2	....	+2.6

1900 FEBRUARY 18. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
11	ι Tauri	8	57 56.92	− 0.83	−**46.84**	4 57 9.25	−2.17	338 32 0.78	....	19.4	+21 26 51.3	....	−1.1
12	108 Tauri	9	10 16.93	0.86	**46.88**	5 9 29.23	2.25	337 48 39.75	....	18.5	22 10 13.1	....	0.8
13	n Tauri	9	14 6.04	0.85	**46.82**	5 13 18.35	2.28	337 59 15.85	....	18.7	21 59 36.8	....	−0.5
14	Lal. 10107	9	20 3.74	0.80	46.84	5 19 16.10	2.28	339 29 18.00	....	20.5	20 29 32.9	....	+0.4
15	W. B.₂ V. 541	8	22 41.54	0.90	46.84	5 21 53.80	2.34	336 46 20.45	....	17.3	23 12 33.6	....	−0.4
16	Mayer 219	9	28 32.13	0.79	46.84	5 27 44.50	2.33	339 34 39.60	....	20.6	20 24 11.2	....	+0.8
17	ζ Tauri	9	32 30.13	− 0.82	−**46.87**	5 31 42.47	−2.36	338 53 58.58	....	19.8	+21 4 53.0	....	+1.0
18	Anonymous	9	36 47.22	− 0.87	−46.84	5 35 59.51	−2.41	337 28 49.25	....	18.2	+22 30 4.0	....	+0.6
19	Lal. 10891	9	42 2.82	0.87	46.84	5 41 15.11	2.44	337 29 25.60	....	18.2	22 29 27.6	....	0.9
20	Lal. 11062	9	46 35.98	0.91	46.84	5 45 48.23	2.48	336 37 33.48	....	17.2	23 21 20.7	....	0.9
21	χ¹ Orionis	9	49 17.66	0.79	46.84	5 48 30.03	2.43	339 43 25.30	....	20.8	20 15 25.3	....	2.1
22	W. B.₂ V. 1652	9	53 47.81	0.80	46.84	5 53 0.17	2.46	339 18 51.65	....	20.3	20 39 59.4	....	2.2
23	3 Geminorum	9	4 29.93	0.90	**46.77**	6 3 42.19	2.57	336 51 9.15	....	17.4	23 7 44.8	....	2.0
24	η Geminorum	9	9 40.58	− 0.87	−**46.92**	6 8 53.16	−2.58	337 26 46.35	....	18.1	+22 32 7.0	....	+2.6

1900 FEBRUARY 19. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
25	β Andromedæ	9	4 57.47	− 1.35	−**47.61**	1 4	....	324 53 31.65	....	4.1	+35 5 39.0	....	....
26	α Ursæ Minoris	11	24 28.91	86.99	**48.20**	1 22	....	271 13 35.99	....	72.0	88 46 49.8	....	....
27	α Arietis	9	2 21.54	− 0.85	−**47.58**	2 1	....	336 59 24.00	....	17.4	+22 59 33.9	....	....

1900 FEBRUARY 19. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
28	ι Tauri	9	57 57.47	− 0.78	−**47.46**	4 57 9.17	−2.15	338 32 2.08	....	19.4	+21 26 51.0	....	−1.1
29	108 Tauri	9	10 17.53	0.80	**47.51**	5 9 29.20	2.23	337 48 39.65	....	18.5	22 10 14.3	....	0.7
30	n Tauri	9	14 6.72	0.80	**47.57**	5 13 18.38	2.26	337 59 17.78	....	18.7	21 59 36.0	....	−0.5
31	Lal. 10107	9	20 4.29	0.74	47.54	5 19 16.01	2.27	339 29 18.90	....	20.5	20 29 33.1	....	+0.4
32	W. B.₂ V. 541	9	22 42.13	0.84	47.54	5 21 53.75	2.33	336 46 21.55	....	17.3	23 12 33.7	....	−0.4
33	W. B.₂ V. 618	9	24 59.49	− 0.77	−47.55	5 24 11.17	−2.31	338 40 47.72	....	19.6	+21 18 5.2	....	+0.4
34	Mayer 219	9	28 32.79	− 0.74	−47.55	5 27 44.50	−2.31	339 34 41.32	....	20.6	+20 24 10.6	....	+0.9
35	ζ Tauri	9	32 30.78	0.76	**47.60**	5 31 42.46	2.34	338 54 0.05	....	19.8	21 4 52.7	....	1.0
36	Piazzi V. 184	9	36 52.01	0.82	47.56	5 36 3.63	2.40	337 22 19.38	....	18.0	22 36 35.1	....	0.6
37	Lal. 10891	9	42 3.44	0.81	47.56	5 41 15.07	2.42	337 29 26.92	....	18.2	22 29 27.4	....	0.9
38	Lal. 11062	9	46 36.65	0.84	47.57	5 45 48.24	2.46	336 37 34.00	....	17.2	23 21 21.3	....	0.9
39	χ¹ Orionis	9	49 18.38	0.73	47.57	5 48 30.08	2.42	339 43 26.78	....	20.8	20 15 24.9	....	2.1
40	W. B.₂ V. 1652	9	53 48.51	− 0.75	−47.58	5 53 0.18	−2.45	339 18 53.58	....	20.3	+20 39 58.6	....	+2.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
15 5 44	75.45	+7.0	43.4
6 2	75.43	+6.8	43.1
18 5 1	75.30	−6.7	17.9
5 55	75.33	7.5	16.9
19 1 10	75.78	1.6	26.2
2 10	75.80	1.7	25.9
5 2	75.95	4.5	21.8
5 30	75.95	−5.0	21.1

Bisections are made at IV, except as noted below.

26. Bisections at b_3 and c_5.

Notes.

2. Bisection 8ˢ late.
3, 6. Very faint; poor.
14. Clouds.
29. Observation hurried.

Adopted Equator Point Corrections.

	″
1–10, from stars {5ʰ 6ᵐ	+54.43
1–10, from stars {6 4	+53.97
11–24, from stars	+48.6
25–27, from nadir	+45.2
28–40, from stars	+47.5

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	
8	+54.5	....
9	53.8	....
10	53.6	...
11	49.1	....
12	47.3	....
13	49.6	....
17	48.9	....
23	47.9	....
24	49.1	....
28	47.7	....
29	47.5	....
30	47.7	....
35	+47.5	....

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	1 Geminorum	9	58 53.47	− 0.84	**−47.61**	5 58 5.05	−2.52	336 42 49.92	....	17.3	+23 16 5.3	....	+1.7
2	3 Geminorum	9	4 30.63	0.84	**47.55**	6 3 42.20	2.55	336 51 9.70	....	17.4	23 7 45.4	....	2.1
3	η Geminorum	9	9 41.49	− 0.81	**−47.60**	6 8 53.09	−2.57	337 26 47.68	....	18.1	+22 32 6.7	....	+2.6

1900 FEBRUARY 19. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
4	κ Draconis	9	30 9.96	− 5.15	**−47.82**	12 29	....	289 40	....	....	+70 20	....	.....
5	θ Virginis	9	5 36.51	+ 0.06	**47.85**	13 4	....	4 58 45.10	....	59.8	− 5 0 29.7	....	.....
6	α Ursæ Minoris S. P.	9	21 35.44	+85.39	**−47.45**	1 22	....	268 47 25.53	....	80.3	+88 46 48.5	....	.....

1900 FEBRUARY 20. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
7	ι Tauri	9	57 57.99	− 0.70	**−48.07**	4 57 9.24	−2.14	338 32 3.05		19.1	+21 26 50.7	....	−1.1
8	108 Tauri	9	10 18.02	0.73	**48.08**	5 9 29.23	2.22	337 48 40.10	....	18.3	22 10 14.5	....	0.7
9	n Tauri	9	14 7.11	0.72	**48.06**	5 13 18.32	2.24	337 59 18.42	....	18.5	21 59 36.0	....	−0.4
10	Lal. 10107	9	20 4.72	0.67	48.07	5 19 15.98	2.25	339 29 19.92	....	20.3	20 29 32.7	....	+0.4
11	W. B.₂ V. 541	9	22 42.58	− 0.76	−48.08	5 21 53.74	−2.31	336 46 20.90	....	17.1	+23 12 34.9	....	−0.4
12	W. B.₂ V. 618	9	24 59.84	− 0.70	−48.08	5 24 11.06	−2.29	338 40 48.25	....	19.3	+21 18 5.3	....	+0.4
13	Rümker 1471	9	29 44.99	0.74	48.08	5 28 56.17	2.34	337 28 51.12	....	17.9	22 30 3.9	....	0.3
14	ζ Tauri	9	32 31.16	0.69	**48.06**	5 31 42.39	2.33	338 54 0.50	....	19.6	21 4 52.8	....	1.0
15	Anonymous	5	37 40.46	0.70	48.09	5 36 51.67	2.36	338 38 30.62	....	19.3	21 20 23.0	....	1.1
16	Lal. 10913	9	42 31.43	− 0.69	−48.10	5 41 42.64	−2.38	339 4 38.95	....	19.8	+20 54 14.1	....	+1.5
17	B. D. +22° 1080	9	48 9.40	− 0.72	−48.10	5 47 20.58	−2.43	337 55 53.35	....	18.5	+22 3 1.1	....	+1.5
18	140 Tauri	9	55 15.81	0.75	48.11	5 54 26.95	2.48	337 5 19.58	....	17.5	22 53 35.8	....	1.6
19	1 Geminorum	9	58 53.92	0.76	**48.15**	5 58 5.05	2.51	336 42 50.58	....	17.1	23 16 5.2	....	1.7
20	3 Geminorum	9	4 31.06	0.76	**48.08**	6 3 42.18	2.53	336 51 10.08	....	17.2	23 7 45.6	....	2.1
21	η Geminorum	9	9 41.93	− 0.74	**−48.12**	6 8 53.07	−2.56	337 26 48.25	....	17.9	+22 32 6.7	....	+2.6

1900 FEBRUARY 23. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
22	ι Tauri	9	57 59.77	− 0.78	**−49.82**	4 57 9.12	−2.09	338 31 56.20	....	18.3	+21 26 50.5	....	−1.0
23	108 Tauri	9	10 19.83	0.81	**49.86**	5 9 29.15	2.17	337 48 32.98	....	17.5	22 10 14.5	....	0.6
24	n Tauri	9	14 8.96	0.80	**49.87**	5 13 18.29	2.20	337 59 10.65	....	17.7	21 59 36.6	....	−0.3
25	Lal. 10107	9	20 6.51	0.75	49.87	5 19 15.89	2.20	339 29 13.60	....	19.4	20 29 32.0	....	+0.6
26	o Tauri	9	22 30.61	− 0.80	**−49.87**	5 21 39.94	−2.24	338 7 41.98	....	17.9	+21 51 5.1	....	+0.2
27	W. B.₂ V. 618	9	25 1.71	− 0.78	−49.87	5 24 11.06	−2.24	338 40 41.12	....	18.5	+21 18 5.4	....	+0.5
28	Rümker 1471	9	29 46.81	0.82	49.87	5 28 56.12	2.29	337 28 43.48	....	17.2	22 30 4.3	....	0.4
29	ζ Tauri	9	32 33.05	0.77	**49.92**	5 31 42.41	2.28	338 53 53.12	....	18.7	21 4 53.2	....	1.1
30	W. B.₂ V. 1127	9	38 15.47	0.78	49.87	5 37 24.82	2.32	338 36 39.22	....	18.4	21 22 7.4	....	1.2
31	Lal. 10913	9	42 33.28	− 0.76	−49.87	5 41 42.65	−2.33	339 4 31.80	....	19.0	+20 54 14.2	....	+1.6
32	B. D. +22° 1080	9	48 11.21	− 0.80	−49.87	5 47 20.54	−2.38	337 55 46.65	....	17.7	+22 3 0.6	....	+1.6
33	140 Tauri	9	55 17.65	0.83	49.87	5 54 26.95	2.44	337 5 12.12	....	16.7	22 53 36.2	....	1.7
34	1 Geminorum	9	58 55.67	0.85	**49.86**	5 58 4.95	2.46	336 42 42.95	....	16.3	23 16 5.8	....	1.8
35	3 Geminorum	9	4 32.87	0.84	**49.85**	6 3 42.16	2.49	336 51 4.02	....	16.5	23 7 44.5	....	2.1
36	η Geminorum	9	9 43.73	− 0.82	**−49.89**	6 8 53.04	−2.51	337 26 42.28	....	17.1	+22 32 5.6	....	+2.6

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
19 6 2	75.965	−5.5	21.3
13 8	76.14	7 4	18.2
13 38	76.125	7.5	17.8
20 4 55	76.385	0.4	30.0
5 46	76.38	0.8	29.0
6 7	76.35	−1.0	28.4
23 4 55	74.85	+6.2	42.2
5 37	74.92	5.7	40.9
6 8	74.90	+5.0	40.2

Bisections are made at IV, except as noted below.

6. Bisections at d_1 and b_3.

Notes.

6. Star images diffuse.
22–36. Seeing poor.
29, 30, 34. Unsteady.

Adopted Equator Point Corrections.

	″
1–3, from stars	+47.5
5–6, from nadir	+44.8
7–21, from stars	+47.1
22–36, from stars	+55.0

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	
1	+47.0	....
2	47.5	....
3	47.7	....
7	47.0	....
8	47.3	....
9	47.4	....
14	47.2	....
19	46.5	....
20	47.3	....
21	47.3	....
22	54.8	....
23	55.3	....
24	56.0	....
26	54.6	....
29	55.6	....
34	55.1	....
35	54.1	....
36	+54.1	....

1900 FEBRUARY 23. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	κ Draconis	11	30 12.63	− 5.41	**−50.05**	12 29	....	289 40	....	....	+70 20	....	....
2	θ Virginis	9	5 38.77	+ 0.08	**50.04**	13 4	....	4 58 41.18	....	56.9	− 5 0 29.7	....	....
3	α Ursæ Minoris S. P.	11	21 26.82	+91.65	**−47.69**	1 22	....	268 47 13.64	....	76.3	+88 46 48.5	....	....
	1900 FEBRUARY 25. CLAMP EAST. UPDEGRAFF, OBSERVER. NO ASSISTANT.												
4	ι Tauri	9	58 0.34	− 0.91	**−50.30**	4 57 9.12	−2.05	338 31 58.80	....	19.2	+21 26 50.2	....	−1.0
5	108 Tauri	9	10 20.43	0.94	**50.36**	5 9 29.18	2.14	337 48 35.80	....	18.4	22 10 14.0	....	0.6
6	n Tauri	9	14 9.46	0.93	**50.28**	5 13 18.22	2.16	337 59 13.98	....	18.6	21 59 35.6	....	−0.3
7	Lal. 10107	9	20 7.03	0.87	50.32	5 19 15.84	2.17	339 29 15.32	....	20.4	20 29 32.5	....	+0.6
8	o Tauri	9	22 31.18	− 0.93	**−50.35**	5 21 39.93	−2.20	338 7 43.38	....	18.8	+21 51 6.0	....	+0.2
9	W. B.₂ V. 618	9	25 2.26	− 0.90	−50.32	5 24 11.04	−2.21	338 40 43.22	....	19.5	+21 18 5.5	....	+0.5
10	Rümker 1471	9	29 47.32	0.95	50.32	5 28 56.05	2.26	337 28 46.50	....	18.1	22 30 3.6	....	0.4
11	ζ Tauri	9	32 33.51	0.90	**50.28**	5 31 42.29	2.25	338 53 55.50	....	19.7	21 4 53.0	....	1.1
12	W. B.₂ V. 1127	9	38 16.03	0.90	50.33	5 37 24.80	2.28	338 36 40.68	....	19.4	21 22 8.1	....	1.2
13	Lal. 10913	9	42 33.82	− 0.89	−50.33	5 41 42.60	−2.30	339 4 33.85	....	20.0	+20 54 14.4	....	+1.6
14	Anonymous	9	48 4.81	− 0.94	−50.33	5 47 13.54	−2.35	337 56 36.40	....	18.6	+22 2 13.2	....	+1.5
15	140 Tauri	9	55 18.23	0.97	50.34	5 54 26.92	2.40	337 5 14.18	....	17.6	22 53 36.4	....	1.7
16	1 Geminorum	9	58 56.24	0.99	**50.32**	5 58 4.91	2.43	336 42 45.32	....	17.2	23 16 5.7	....	1.7
17	3 Geminorum	9	4 33.47	0.98	**50.34**	6 3 42.15	2.46	336 51 6.02	....	17.4	23 7 44.8	....	2.1
18	η Geminorum	9	9 44.31	− 0.96	**−50.36**	6 8 53.01	−2.48	337 26 43.30	....	18.0	+22 32 6.9	....	+2.5
	1900 FEBRUARY 26. CLAMP EAST. UPDEGRAFF, OBSERVER. NO ASSISTANT.												
19	ι Tauri	9	58 0.89	− 0.77	**−51.00**	4 57 9.11	−2.04	338 31 58.98	....	19.4	+21 26 51.3	....	−0.9
20	108 Tauri	9	10 20.96	0.79	**51.06**	5 9 29.16	2.12	337 48 37.62	....	18.6	22 10 13.5	....	0.6
21	n Tauri	9	14 10.00	0.79	**50.98**	5 13 18.20	2.14	337 59 15.08	....	18.8	21 59 35.8	....	−0.3
22	o Tauri	9	22 31.59	0.78	**50.98**	5 21 39.80	2.18	338 7 45.15	....	19.0	21 51 5.5	....	+0.2
23	Rümker 1471	9	29 47.90	0.81	51.01	5 28 56.08	2.24	337 28 46.35	....	18.2	22 30 5.1	....	0.3
24	ζ Tauri	9	32 34.14	0.76	**51.06**	5 31 42.37	2.24	338 53 56.65	....	19.9	21 4 53.1	....	1.1
25	W. B.₂ V. 1127	9	38 16.64	− 0.77	−51.01	5 37 24.86	−2.27	338 36 42.82	....	19.6	+21 22 7.3	....	+1.2
26	Lal. 10913	9	42 34.38	− 0.75	−51.01	5 41 42.62	−2.28	339 4 35.42	....	20.1	+20 54 14.2	....	+1.6
27	B. D. +22° 1080	9	48 12.34	0.79	51.01	5 47 20.54	2.33	337 55 49.40	....	18.8	22 3 1.5	....	1.5
28	140 Tauri	9	55 18.81	0.82	51.01	5 54 26.98	2.39	337 5 15.85	....	17.8	22 53 36.1	....	1.6
29	1 Geminorum	9	58 56.79	0.84	**51.08**	5 58 4.94	2.42	336 42 47.10	....	17.3	23 16 5.3	....	1.7
30	3 Geminorum	9	4 33.99	0.83	**51.02**	6 3 42.15	2.45	336 51 7.32	....	17.5	23 7 44.9	....	2.1
31	η Geminorum	9	9 44.76	− 0.81	**−50.98**	6 8 52.94	−2.46	337 26 44.68	....	18.2	+22 32 6.8	....	+2.5
	1900 FEBRUARY 27. CLAMP EAST. LITTELL, OBSERVER. NO ASSISTANT.												
32	β Andromedæ	9	5 1.11	− 1.30	**−51.39**	1 4	....	324 53 34.25	....	4.2	+35 5 37.4	....	....
33	α Ursæ Minoris	11	24 20.55	84.05	**48.37**	1 22	....	271 13 40.22	....	74.0	88 46 48.1	....	....
34	α Arietis	9	2 25.07	− 0.82	**−51.25**	2 1	....	336 59 24.00	....	17.8	+22 59 34.0	....	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
23 13 0	74.90	+1.4	+33.8
13 44	74.87	+1.4	+34.1
25 5 7	74.72	−7.8	−*8.4
5 37	74.79	8.0	8.8
6 2	74.82	8.2	8.9
26 5 3	75.95	5.6	6.6
5 35	76.00	6.2	6.7
6 3	76.03	6.5	7.1
27 1 13	77.05	5.0	6.2
2 7	77.035	−4.5	− 5.6

* Ext. Ther. Centigrade from here on.

Bisections are made at IV, except as noted below.

3. Bisections at c_5 and c_1.
33. Bisections at b_3 and d_1.

Notes.

5, 12, 18. Seeing poor.
9. Very poor.
13. Observation hurried.
19–31. Seeing good; stellar focus not good.

Adopted Equator Point Corrections.

	″
1–3, from nadir	+51.6
4–18, from stars	+51.8
19–31, from stars	+50.3
32–34, from nadir	+44.2

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	
4	+51.3	....
5	51.6	....
6	51.8	....
8	52.3	....
11	52.2	....
16	51.7	....
17	51.2	....
18	52.1	....
19	51.0	....
20	49.6	....
21	50.5	....
22	50.3	....
24	50.8	....
29	49.8	....
30	49.8	....
31	+50.5	....

UPDEGRAFF, OBSERVER. 1900 FEBRUARY 27. CLAMP EAST. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ι Tauri	9	58 1.04	—0.72	**—51.22**	4 57 9.08	—2.02	338 32 3.00	....	19.8	+21 26 50.4	....	— 0.9
2	108 Tauri	9	10 21.07	0.74	**51.24**	5 9 29.08	2.10	337 48 40.22	....	18.9	22 10 14.2	....	0.6
3	n Tauri	9	14 10.17	0.73	**51.22**	5 13 18.19	2.13	337 59 18.30	....	19.1	21 59 35.9	....	— 0.3
4	o Tauri	9	22 31.91	0.73	**51.31**	5 21 39.92	2.17	338 7 48.72	....	19.3	21 51 5.4	....	+ 0.2
5	Rümker 1471	9	29 48.07	0.75	51.26	5 28 56.06	2.22	337 28 51.18	....	18.5	22 30 3.8	....	0.3
6	W. B., V. 1127	9	38 16.76	—0.71	—51.27	5 37 24.78	—2.25	338 36 46.50	....	19.9	+21 22 7.2	....	+ 1.2
7	Lal. 10913	7	42 34.54	—0.70	—51.27	5 41 42.57	—2.27	339 4 38.58	....	20.5	+20 54 14.6	....	+ 1.6
8	B. D. +22° 1080	9	48 12.50	0.74	51.28	5 47 20.48	2.32	337 55 53.08	....	19.1	22 3 1.5	....	1.5
9	140 Tauri	9	55 18.97	0.76	51.29	5 54 26.92	2.37	337 5 19.65	....	18.1	22 53 36.0	....	1.6
10	1 Geminorum	9	58 56.98	0.78	**51.30**	5 58 4.91	2.40	336 42 50.60	....	17.6	23 16 5.6	....	1.7
11	3 Geminorum	6	4 34.16	0.77	**51.27**	6 3 42.10	2.43	336 51 11.95	....	17.8	23 7 44.1	....	2.0
12	η Geminorum	9	9 45.01	—0.75	**—51.31**	6 8 52.96	—2.44	337 26 48.70	....	18.5	+22 32 6.8	....	+ 2.5

UPDEGRAFF, OBSERVER. 1900 MARCH 2. CLAMP EAST. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
13	n Tauri	9	14 11.79	—0.95	**—52.68**	5 13 18.15	—2.07	337 59 13.52	....	18.0	+21 59 35.8	....	— 0.4
14	o Tauri	9	22 33.45	0.94	**52.70**	5 21 39.83	2.11	338 7 43.75	....	18.2	21 51 5.5	....	+ 0.1
15	Rümker 1471	9	29 49.56	0.97	52.68	5 28 55.91	2.16	337 28 46.18	....	17.5	22 30 3.9	....	0.3
16	ζ Tauri	9	32 35.84	0.91	**52.67**	5 31 42.25	2.18	338 53 55.78	....	19.1	21 4 52.8	....	1.0
17	Piazzi V 192	9	38 11.07	1.00	52.68	5 37 17.39	2.23	336 49 25.75	....	16.7	23 9 25.5	....	0.5
18	Lal. 10913	9	42 36.15	—0.90	—52.67	5 41 42.58	—2.21	339 4 34.40	....	19.3	+20 54 14.3	....	+ 1.5
19	B. D. +22° 1080	9	48 14.08	—0.95	—52.67	5 47 20.46	—2.26	337 55 48.35	....	18.0	+22 3 1.7	....	+ 1.4
20	Lal. 11293	9	54 35 30	0.93	52.67	5 53 41.70	2.29	338 23 3.78	....	18.5	21 35 46.0	....	1.9
21	1 Geminorum	9	58 58.54	1.00	**52.70**	5 58 4.87	2.34	336 42 46.40	....	16.6	23 16 5.4	....	1.6
22	3 Geminorum	9	4 35.68	1.00	**52.62**	6 3 42.02	2.37	336 51 6.45	....	16.8	23 7 45.3	....	1.9
23	η Geminorum	9	9 46.54	0.97	**52.67**	6 8 52.91	2.39	337 26 43.88	....	17.4	22 32 7.3	....	2.5
24	κ Geminorum	9	39 21.34	—1.06	**—52.74**	7 38 27.55	—2.83	335 20 43.00	....	15.1	+24 38 10.2	....	+ 7.0
25	φ Geminorum	9	48 19.51	—1.18	**—52.70**	7 47 25.61	—2.91	332 57 35.30	....	12.5	+27 1 20.5	....	+ 7.2
26	ω¹ Cancri	9	55 49.62	1.11	**52.72**	7 54 55.80	2.91	334 19 1.48	....	14.0	25 39 52.8	....	7.9
27	B. D. +25° 1853	9	3 2.62	1.08	52.70	8 2 8.84	2.92	334 58 45.75	....	14.7	25 0 7.9	....	8.6
28	ψ² Cancri	9	5 22.62	1.12	52.70	8 4 28.80	2.94	334 10 23.00	....	13.8	25 48 31.5	....	8.5
29	B. D. +25° 1880	9	9 41.01	—1.08	—52.70	8 8 47.23	—2.94	334 56 46.12	....	14.7	+25 2 7.5	....	+ 9.0
30	Lal. 16332	9	16 53.58	—1.00	—52.69	8 15 59.89	—2.92	336 42 48.78	....	16.6	+23 16 2.9	....	+ 9.8
31	υ¹ Cancri	9	21 39.79	1.07	52.68	8 20 46.04	2.96	335 7 16.25	....	14.9	24 51 37.1	....	9.8
32	η Cancri	9	27 52.12	0.90	**52.69**	8 26 58.54	2.90	339 12 8.65	....	19.5	20 46 40.1	....	11.2
33	γ Cancri	9	38 26.57	0.94	**52.66**	8 37 32.97	2.94	338 9 18.92	....	18.3	21 49 31.1	....	11.6
34	ι Cancri	9	41 35.90	—1.28	**—52.65**	8 40 41.96	—3.10	330 51 36.30	....	10.3	+29 7 21.7	....	+10.2

LITTELL, OBSERVER. 1900 MARCH 3. CLAMP EAST. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
35	β Andromedæ	9	5 2.89	—1.68	**—52.83**	1 4	....	324 53 30.52	....	4.0	+35 5 36.7	....	....
36	α Ursæ Minoris	11	24 47.00	109.24	**52.54**	1 22	....	271 13 32.02	....	69.9	88 46 47.6	....	....
37	β Arietis	9	50 1.33	—0.91	**—52.76**	1 49	....	339 39 32.45	....	19.9	+20 19 18.9	....	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
27 4 54	77.40	—5.2	—6.8
5 33	77.15	6.1	7.4
6 8	77.17	—6.7	—7.7
2 5 16	75.24	+3.3	+2.0
5 35	75.26	3.0	1.5
6 3	75.25	2.5	1.4
7 43	75.35	1.6	1.2
8 34	75.36	1.3	0.9
3 1 10	76.15	5.9	5.4
1 54	76.20	+6.5	+6.0

Bisections are made at IV, except as noted below.

36. Bisections at b_3 and d_1.

Notes.

2. Hurried.
11. Hurried; bisection 5^s late.
36. Very unsteady.

Adopted Equator Point Corrections.

1–12, from stars { 5^h 10^m .... +46.70″
6 3 .... +46.10
13–23, from stars { 5 22 .... +52.53
6 4 .... +51.47
24–34, from stars .... +51.7
35–37, from nadir .... +48.8

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	
1	+46.6	....
2	46.7	....
3	47.0	....
4	46.5	....
10	46.0	....
11	[44.7]	....
12	46.2	....
13	52.8	....
14	52.4	....
16	52.4	....
21	51.1	....
22	51.2	....
23	52.1	....
24	52.6	....
25	50.2	....
26	52.5	....
32	51.5	....
33	52.7	....
34	+50.8	....

1900 MARCH 3. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0'\sec\delta + n\tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ι Tauri	9	58 2.67	− 0.95	**−52.69**	4 57 8.95	−1.95	338 31 58.08	....	18.7	+21 26 50.9	....	− 0.8
2	108 Tauri	9	10 22.76	0.98	**52.77**	5 9 29.01	2.02	337 48 35.72	....	17.9	22 10 14.1	....	0.6
3	n Tauri	9	14 11.85	0.97	**52.74**	5 13 18.12	2.05	337 59 13.12	....	18.1	21 59 36.5	....	− 0.3
4	o Tauri	9	22 33.52	0.96	**52.77**	5 21 39.80	2.09	338 7 43.48	....	18.3	21 51 5.9	....	+ 0.2
5	Mayer 219	9	28 37.92	0.90	52.75	5 27 44.27	2.11	339 34 37.00	....	20.0	20 24 10.7	....	1.0
6	ζ Tauri	9	32 35.91	− 0.93	**−52.75**	5 31 42.23	−2.15	338 53 56.42	....	19.2	+21 4 52.1	....	+ 1.0
7	Piazzi V. 192	9	38 11.14	− 1.02	−52.75	5 37 17.37	−2.21	336 49 26.35	....	16.9	+23 9 24.5	....	+ 0.5
8	Lal. 10891	9	42 8.61	0.99	52.74	5 41 14.88	2.22	337 29 22.25	....	17.6	22 29 27.9	....	1.0
9	Lal. 11062	9	46 41.84	1.03	52.74	5 45 48.07	2.26	336 37 31.28	....	16.7	23 21 19.7	....	0.9
10	Lal. 11293	9	54 35.27	0.96	52.73	5 53 41.58	2.28	338 23 3.22	....	18.7	21 35 45.8	....	1.9
11	1 Geminorum	9	58 58.59	1.03	**52.74**	5 58 4.83	2.32	336 42 45.18	....	16.8	23 16 5.7	....	1.6
12	3 Geminorum	9	4 35.76	− 1.02	**−52.69**	6 3 42.01	−2.36	336 51 6.25	....	16.9	+23 7 44.5	....	+ 1.9
13	η Geminorum	9	9 46.64	− 1.00	**−52.75**	6 8 52.92	−2.38	337 26 43.32	....	17.6	+22 32 6.8	....	+ 2.5
14	κ Geminorum	9	39 21.35	1.09	**52.74**	7 38 27.53	2.81	335 20 42.55	....	15.3	24 38 10.4	....	7.0
15	φ Geminorum	9	48 19.53	1.21	**52.70**	7 47 25.59	2.90	332 57 34.58	....	12.7	27 1 20.9	....	7.2
16	ω^1 Cancri	9	55 49.67	1.14	**52.75**	7 54 55.80	2.90	334 19 1.62	....	14.1	25 39 52.5	....	7.9
17	B. D.+25° 1853	9	3 2.69	1.11	52.73	8 2 8.85	2.90	334 58 45.72	....	14.9	25 0 7.6	....	8.5
18	ψ^2 Cancri	9	5 22.70	− 1.15	−52.73	8 4 28.82	−2.93	334 10 22.40	....	14.0	+25 48 31.8	....	+ 8.4
19	B. D.+25° 1880	9	9 41.04	− 1.11	−52.73	8 8 47.20	−2.92	334 56 46.18	....	14.8	+25 2 7.2	....	+ 8.9
20	Lal. 16332	9	16 53.61	1.03	52.73	8 15 59.85	2.91	336 42 48.62	....	16.8	23 16 2.8	....	9.8
21	υ^1 Cancri	9	21 39.82	1.10	52.73	8 20 45.99	2.95	335 7 16.02	....	15.0	24 51 37.2	....	9.7
22	η Cancri	9	27 52.18	0.92	**52.74**	8 26 58.53	2.89	339 12 7.35	....	19.7	20 46 41.2	....	11.1
23	γ Cancri	9	38 26.64	0.96	**52.71**	8 37 32.95	2.94	338 9 18.85	....	18.5	21 49 30.8	....	11.5
24	ι Cancri	9	41 36.01	− 1.31	**−52.74**	8 40 41.97	−3.09	330 51 36.90	....	10.4	+29 7 20.9	....	+10.1

1900 MARCH 3. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0'\sec\delta + n\tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
25	κ Draconis	11	30 16.66	− 6.47	**−52.72**	12 29	....	289 40	....	....	+70 20	....	....
26	θ Virginis	9	5 41.54	+ 0.11	**52.68**	13 4	....	4 58 46.38	....	58.0	− 5 0 33.3	....	....
27	α Ursæ Minoris S. P.	11	21 6.55	+110.22	**−51.84**	1 22	....	268 47 17.32	....	77.9	+88 46 46.8	....	....

1900 MARCH 5. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0'\sec\delta + n\tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
28	108 Tauri	9	10 22.74	− 0.63	**−53.18**	5 9 29.00	−1.99	337 48 36.65	....	17.8	+22 10 15.0	....	− 0.4
29	n Tauri	9	14 11.79	0.63	**53.06**	5 13 18.05	2.01	337 59 15.32	....	18.0	21 59 36.1	....	− 0.2
30	o Tauri	9	22 33.53	0.62	**53.15**	5 21 39.80	2.06	338 7 46.50	....	18.2	21 51 4.7	....	+ 0.3
31	Mayer 219	9	28 37.89	0.57	53.11	5 27 44.21	2.07	339 34 39.20	....	19.8	20 24 10.4	....	1.1
32	ζ Tauri	9	32 35.89	0.60	**53.10**	5 31 42.19	2.11	338 53 58.02	....	19.1	21 4 52.3	....	1.0
33	Piazzi V. 192	9	38 11.07	0.67	53.10	5 37 17.30	2.17	336 49 27.98	....	16.7	23 9 24.7	....	0.6
34	Lal. 10891	9	42 8.57	− 0.64	−53.10	5 41 14.83	−2.18	337 29 24.08	....	17.5	+22 29 27.8	....	+ 1.0

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
3 4 56	76.38	5.4	4.2
5 35	76.39	4.5	3.5
6 2	76.41	3.7	2.8
7 42	76.44	2.5	2.0
8 14	76.46	2.2	2.3
8 53	76.44	1.8	1.6
13 1	76.43	0.5	1.4
13 25	76.40	0.5	0.9
5 5 16	76.40	7.7	6.0
5 36	.....	...	5.6

Bisections are made at IV, except as noted below.

27. Bisections at d_1 and b_3.

Adopted Equator Point Corrections.

	″
1–13, from stars	+52.3
14–24, from stars	+51.8
25–27, from nadir	+48.9
28–34, from stars	+50.6

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	
1	+52.7	....
2	52.2	....
3	53.2	....
4	52.7	....
6	51.7	....
11	52.1	....
12	51.2	....
13	52.5	....
14	52.9	....
15	50.7	....
16	52.3	....
22	52.6	....
23	52.4	....
24	50.0	....
28	51.6	....
29	51.2	....
30	49.9	....
32	+50.2	....

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Lal. 11062	9	46 41.78	− 0.68	−53.10	5 45 48.00	−2.22	336 37 32.48	....	16.5	+23 21 20.4	....	+ 1.0
2	χ¹ Orionis	9	49 23.53	0.57	53.10	5 48 29.86	2.18	339 43 24.65	....	20.0	20 15 24.8	....	2.2
3	Lal. 11293	9	54 35.30	0.61	53.09	5 53 41.60	2.24	338 23 5.60	....	18.5	21 35 45.3	....	2.0
4	1 Geminorum	8	58 58.53	0.67	**53.07**	5 58 4.77	2.29	336 42 47.48	....	16.6	23 16 5.3	....	1.7
5	3 Geminorum	9	4 35.77	0.67	**53.09**	6 3 42.01	2.32	336 51 6.80	....	16.8	23 7 45.8	....	2.0
6	η Geminorum	9	9 46.61	− 0.65	**−53.11**	6 8 52.87	−2.34	337 26 45.45	....	17.5	+22 32 6.4	....	+ 2.5

1900 MARCH 7. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
7	α Ursæ Minoris	11	23 17.27	−73.60	**− 0.40**	1 22	....	271 13 36.90	....	69.8	+88 46 45.4	....	....

1900 MARCH 7. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
8	ι Tauri	9	57 8.24	− 0.56	**+ 1.28**	4 57 8.95	−1.88	338 32 1.35	....	18.7	+21 26 51.1	....	− 0.7
9	108 Tauri	9	9 28.26	0.58	**1.26**	5 9 28.95	1.95	337 48 39.28	....	17.9	22 10 13.9	....	0.3
10	n Tauri	9	13 17.39	0.58	**1.26**	5 13 18.08	1.98	337 59 17.28	....	18.1	21 59 35.7	....	− 0.1
11	o Tauri	9	21 39.00	0.58	**1.30**	5 21 39.70	2.02	338 7 47.38	....	18.3	21 51 5.4	....	+ 0.4
12	Rümker 1471	9	28 55.22	0.60	1.28	5 28 55.90	2.07	337 28 48.80	....	17.5	22 30 4.8	....	0.5
13	ζ Tauri	9	31 41.43	− 0.55	**+ 1.27**	5 31 42.16	−2.07	338 53 59.98	....	19.2	+21 4 51.9	....	+ 1.1
14	Piazzi V. 192	9	37 16.66	− 0.62	+ 1.28	5 37 17.32	−2.13	336 49 29.55	....	16.8	+23 9 24.7	....	+ 0.7
15	χ¹ Orionis	9	48 29.07	0.52	1.28	5 48 29.83	2.15	339 43 26.22	....	20.1	20 15 24.8	....	2.3
16	Lal. 11293	9	53 40.91	0.57	1.28	5 53 41.62	2.20	338 23 7.52	....	18.6	21 35 45.0	....	2.1
17	1 Geminorum	9	58 4.11	0.62	**1.26**	5 58 4.78	2.25	336 42 49.22	....	16.7	23 16 5.2	....	1.7
18	3 Geminorum	9	3 41.28	0.62	**1.32**	6 3 41.95	2.29	336 51 8.85	....	16.9	23 7 45.3	....	2.1
19	η Geminorum	9	8 52.13	− 0.60	**+ 1.28**	6 8 52.82	−2.30	337 26 46.75	....	17.5	+22 32 6.9	....	+ 2.5
20	κ Geminorum	9	38 26.87	− 0.70	**+ 1.30**	7 38 27.44	−2.76	335 20 46.05	....	15.3	+24 38 10.1	....	+ 6.8
21	φ Geminorum	9	47 25.06	0.78	**1.29**	7 47 25.55	2.85	332 57 37.45	....	12.6	27 1 21.5	....	6.9
22	ω¹ Cancri	9	54 55.23	0.74	**1.28**	7 54 55.77	2.84	334 19 4.28	....	14.2	25 39 53.0	....	7.7
23	B. D. +25° 1853	9	2 8.26	0.71	1.28	8 2 8.83	2.86	334 58 49.45	....	14.9	25 0 7.1	....	8.4
24	ψ² Cancri	9	4 28.26	0.74	1.28	8 4 28.80	2.88	334 10 25.60	....	14.0	25 48 31.9	....	8.4
25	B. D. +25° 1880	9	8 46.58	− 0.71	+ 1.29	8 8 47.16	−2.88	334 56 48.95	....	14.9	+25 2 7.7	....	+ 8.8
26	Lal. 16332	9	15 59.21	− 0.65	+ 1.29	8 15 59.85	−2.87	336 42 51.65	....	16.8	+23 16 3.1	....	+ 9.7
27	υ¹ Cancri	9	20 45.38	0.71	1.29	8 20 45.96	2.91	335 7 19.45	....	15.1	24 51 36.9	....	9.6
28	η Cancri	9	26 57.73	0.57	**1.33**	8 26 58.46	2.86	339 12 11.45	....	19.7	20 46 40.3	....	11.0
29	γ Cancri	9	37 32.24	0.60	**1.29**	8 37 32.94	2.90	338 9 21.85	....	18.5	21 49 31.1	....	11.3
30	ι Cancri	9	40 41.50	− 0.86	**+ 1.28**	8 40 41.94	−3.05	330 51 39.05	....	10.4	+29 7 22.1	....	+ 9.7

1900 MARCH 7. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
31	α Ursæ Minoris S. P.	5	20 44.60	+78.60	**− 0.16**	1 22	....	268 47	....	....	+88 46	....	....

Time. d	Time. h m	Barom.	Att. Ther.	Ext. Ther.
d	h m	cm.	°	°
5	6 2	76.40	6.8	5.2
	7 42	76.41	5.5	4.7
7	1 35	76.43	8.1	7.3
	5 4	76.60	6.8	5.4
	5 35	76.62	6.0	5.0
	6 2	76.65	5.5	4.7
	7 46	76.74	4.2	3.2
	8 12	76.77	4.2	3.0
	8 40	76.73	3.8	2.5

Bisections are made at IV, except as noted below.

Notes.

4. Poor observation; bisection doubtful.
7. Very unsteady and faint.
31. Very faint through clouds.

Adopted Equator Point Corrections.

	″
1–6, from stars	+50.6
7, from nadir	+46.0
8–19, from stars	+48.9
20–30, from stars	+48.5

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	
4	+50.1	....
5	50.9	....
6	50.4	.. .
8	49.6	....
9	48.9	....
10	49.2	....
11	49.0	....
13	48.2	....
17	48.3	....
18	48.8	....
19	49.2	....
20	49.1	....
21	47.7	....
22	49.3	....
28	48.3	....
29	49.2	....
30	+47.5	....

1900 MARCH 9. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	κ Geminorum	9	38 26.61	− 0.68	**+1.51**	7 38 27.46	−2.73	335 20 46.40	....	14.9	+24 38 11.4	....	+ 6.7
2	φ Geminorum	9	47 24.71	0.76	**1.59**	7 47 25.47	2.82	332 57 39.45	....	12.3	27 1 20.9	....	6.8
3	ω¹ Cancri	9	54 54.97	0.72	**1.45**	7 54 55.75	2.82	334 19 6.72	....	13.8	25 39 52.2	....	7.6
4	Lal. 15839	9	1 54.59	0.67	1.49	8 1 55.41	2.82	335 40 37.70	....	15.3	24 18 19.7	....	8.5
5	ψ² Cancri	9	4 28.02	− 0.72	+1.49	8 4 28.79	−2.86	334 10 27.30	....	13.6	+25 48 31.8	....	+ 8.3
6	υ¹ Cancri	9	20 45.22	− 0.69	+1.46	8 20 45.99	+2.89	335 7 20.42	....	14.7	+24 51 37.6	....	+ 9.5
7	η Cancri	9	26 57.56	0.55	**1.46**	8 26 58.46	2.84	339 12 12.42	....	19.2	20 46 41.1	....	10.9
8	γ Cancri	9	37 32.08	0.58	**1.41**	8 37 32.94	2.88	338 9 23.50	....	18.0	21 49 31.2	....	11.2
9	ι Cancri	9	40 41.29	− 0.84	**+1.45**	8 40 41.88	+3.03	330 51 40.62	....	10.1	+29 7 22.0	....	+ 9.5

1900 MARCH 12. CLAMP EAST.

LITTELL, OBSERVER. UPDEGRAFF, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
10	β Andromedæ	9	4 8.14	− 1.24	**+1.41**	1 4	....	324 53 36.92	34.75	4.1	+35 5 35.4	34.1	....
11	α Ursæ Minoris.....	7	23 23.40	85.02	**2.36**	1 22	....	271 13 42.17	39.59	72.3	88 46 45.0	45.2	....
12	α Arietis	9	1 32.17	− 0.72	**+1.41**	2 1	....	336 59 26.42	25.45	17.4	+22 59 32.6	30.1	....

1900 MARCH 12. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
13	24 Lyncis	9	34 38.36	− 2.88	[**+1.43**]	7 34 36.95	−3.98	301 2 54.98	51.35	22.2	+58 56 41.5	43.0	− 3.4
14	κ Geminorum	9	38 26.70	0.76	**1.45**	7 38 27.41	2.68	335 20 48.00	48.75	15.5	24 38 11.1	8.3	+ 6.6
15	φ Geminorum	9	47 24.84	0.85	**1.50**	7 47 25.46	2.77	332 57 40.25	37.50	12.9	27 1 21.5	22.2	6.6
16	ω¹ Cancri	9	54 55.01	0.80	**1.45**	7 54 55.68	2.78	334 19 6.45	6.42	14.4	25 39 53.8	51.8	7.5
17	B. D.+25° 1853 ...	9	2 8.06	0.77	1.46	8 2 8.75	2.79	334 58 50.98	51.35	15.2	25 0 8.5	6.0	8.2
18	ψ² Cancri	5	4 28.02	0.80	1.46	8 4 28.68	2.82	334 10 28.50	.....	14.2	25 48 31.9	....	8.1
19	B. D.+25° 1880 ...	9	8 46.37	− 0.77	+1.46	8 8 47.06	−2.82	334 56 50.92	50.30	15.1	+25 2 8.6	7.2	+ 8.5
20	Lal. 16332	9	15 59.02	− 0.70	+1.46	8 15 59.78	−2.81	336 42 54.20	51.82	17.1	+23 16 3.3	3.7	+ 9.5
21	υ¹ Cancri	9	20 45.21	0.76	1.46	8 20 45.91	2.86	335 7 21.98	20.20	15.3	24 51 37.3	37.0	9.3
22	η Cancri	9	26 57.56	0.62	**1.50**	8 26 58.40	2.81	339 12 14.02	10.08	20.0	20 46 40.6	42.5	10.8
23	γ Cancri	9	37 32.09	0.65	**1.44**	8 37 32.89	2.85	338 9 24.52	22.75	18.8	21 49 31.3	31.0	11.1
24	ι Cancri	9	40 41.38	0.93	**1.42**	8 40 41.90	3.00	330 51 42.58	38.25	10.6	29 7 21.4	23.7	9.3
25	ι Ursæ Majoris	9	52 26.00	1.94	[**1.39**]	8 52 25.51	3.63	311 33 27.52	22.48	10.2	48 25 57.1	60.1	5.3
26	σ² Ursæ Majoris	8	1 44.15	− 4.22	[**+1.42**]	9 1 41.37	−5.33	292 27 24.58	21.80	33.4	+67 32 22.9	23.6	+ 1.8

1900 MARCH 14. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
27	β Andromedæ	7	4 8.47	− 1.06	**+0.89**	1 4	....	324 53 36.88	35.65	3.9	+35 5 35.3	34.0	....
28	α Ursæ Minoris.....	9	23 11.89	73.38	**1.07**	1 22	....	271 13 40.21	37.78	69.0	88 46 43.4	44.4	....
29	β Arietis	9	49 7.27	− 0.52	**+0.80**	1 49	....	339 39 39.02	38.62	19.6	+20 19 17.4	15.3	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
9 7 42	75.58	+7.5	+5.7
8 18	75.52	6.7	5.4
8 54	75.48	+6.3	+5.3
12 1 26	75.94	−2.7	−3.9
2 10	75.93	2.0	3.4
7 33	75.94	3.4	3.8
8 11	75.94	3.7	4.2
8 55	75.92	−4.0	−4.4
14 1 50	75.51	+7.6	+7.0

Bisections are made at II and VI, except as noted below.

1–9, 10, 12, 27, 29. Bisection at IV.
11, 28. Bisections at b_3, c_1, c_5, and d_1.
18. Bisection at II.

Notes.

8. Through clouds.
25. Observation hurried.
29. Observation poor.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–9, from stars	+47.3	....
10–12, from nadir......	+43.6	+47.1
13–26, from stars	+44.5	+46.0
27–29, from nadir......	+44.0	+46.5

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+49.1	....
2	45.8	....
3	47.2	....
7	47.8	....
8	48.0	....
9	46.0	....
14	45.9	+44.6
15	43.4	45.6
16	45.9	45.4
22	44.4	47.8
23	45.2	46.4
24	+42.4	+46.2

1900 MARCH 16. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α Ursæ Minoris.....	..	....	....	.....	1 22	....	271 13 42.16	38.79	69.8	+88 46 43.4	44.8	....

1900 MARCH 16. CLAMP EAST.

LITTELL, OBSERVER. UPDEGRAFF, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
2	24 Lyncis...........	9	34 39.47	− 2.75	[+0.05]	7 34 36.78	−3.84	301 2 55.22	53.62	22.0	+58 56 39.7	42.1	− 4.0
3	κ Geminorum	9	38 27.97	0.72	0.08	7 38 27.31	2.62	335 20 48.45	48.60	15.4	24 38 9.2	9.8	+ 6.4
4	φ Geminorum	8	47 26.21	0.81	0.08	7 47 25.45	2.71	332 57 37.60	39.35	12.8	27 1 22.6	21.7	6.5
5	ω^1 Cancri	9	54 56.33	0.76	0.08	7 54 55.61	2.72	334 19 5.08	7.70	14.3	25 39 53.6	51.8	7.3
6	Anonymous	9	1 44.37	0.74	0.03	8 1 43.66	2.73	334 57 29.78	30.48	15.0	25 1 28.2	28.3	7.8
7	ψ^2 Cancri............	9	4 29.39	0.76	0.02	8 4 28.65	2.76	334 10 26.95	28.25	14.1	25 48 32.0	31.5	7.7
8	Anonymous	9	7 40.73	− 0.74	+0.02	8 7 40.01	−2.76	334 56 38.48	40.65	15.0	+25 2 19.5	18.1	+ 8.1
9	Lal. 16332........	9	16 0.39	− 0.67	+0.01	8 15 59.73	−2.76	336 42 53.88	53.62	17.0	+23 16 2.1	3.1	+ 9.1
10	Lal. 16554........	9	21 35.32	0.68	0.00	8 21 34.64	2.78	336 30 14.38	15.20	16.8	23 28 41.8	41.8	9.4
11	η Cancri............	9	26 58.99	0.58	−0.02	8 26 58.40	2.76	339 12 12.62	11.35	19.9	20 46 40.5	42.6	10.6
12	γ Cancri............	9	37 33.50	0.62	−0.05	8 37 32.86	2.80	338 9 22.25	24.00	18.7	21 49 32.1	31.1	10.9
13	ι Cancri............	9	40 42.69	0.89	+0.01	8 40 41.77	2.94	330 51 39.75	39.65	10.5	29 7 22.8	23.6	8.9
14	ι Ursæ Majoris.....	9	52 27.21	1.85	[0.08]	8 52 25.32	3.57	311 33 28.08	25.78	10.2	48 25 55.1	58.2	4.7
15	σ^2 Ursæ Majoris.....	9	1 45.14	− 4.03	[+0.18]	9 1 41.06	−5.22	292 27 24.22	23.08	33.2	+67 32 21.9	23.8	+ 0.9
16	θ Virginis..........	9	4 48.97	+ 0.22	[−0.02]	13 4	....	4 58 51.85	50.60	59.0	− 5 0 32.7	33.9	....
17	α Ursæ Minoris S. P..	9	20 39.70	+78.53	[+0.15]	1 22	....	268 47 21.95	18.96	79.2	+88 46 43.0	43.0	....
18	d Bootis............	9	5 53.83	− 0.78	[−0.07]	14 5	....	334 25 26.40	25.58	14.5	+25 33 37.3	35.7	....

1900 MARCH 17. CLAMP EAST.

LITTELL, OBSERVER. UPDEGRAFF, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
19	κ Geminorum.......	9	38 28.65	− 0.73	−0.60	7 38 27.32	−2.61	335 20 48.30	51.82	15.8	+24 38 10.6	9.6	+ 6.4
20	φ Geminorum.......	9	47 26.78	0.82	0.55	7 47 25.36	2.69	332 57 39.40	42.58	13.1	27 1 22.2	21.5	6.4
21	ω^1 Cancri	9	54 57.01	0.77	0.66	7 54 55.63	2.70	334 19 6.62	9.80	14.6	25 39 53.5	52.8	7.2
22	Lal. 15839	9	1 56.54	0.72	0.61	8 1 55.21	2.70	335 40 38.75	41.42	16.2	24 18 19.7	19.6	8.0
23	Lal. 16053	9	7 50.21	0.69	0.61	8 7 48.91	2.71	336 32 45.90	50.70	17.2	23 26 11.6	9.3	8.5
24	W. B.$_2$ VIII. 252 ..	9	14 45.34	− 0.77	−0.61	8 14 43.96	−2.78	334 20 3.12	5.58	14.7	+25 38 56.9	56.9	+ 8.3
25	Lal. 16554	9	21 36.07	− 0.69	−0.61	8 21 34.77	−2.77	336 30 15.60	19.38	17.2	+23 28 41.9	40.7	+ 9.2
26	η Cancri	9	26 59.54	0.60	0.58	8 26 58.33	2.73	339 12 13.05	14.12	20.4	20 46 41.3	42.7	10.5
27	γ Cancri	9	37 34.11	0.63	0.66	8 37 32.86	2.79	338 9 24.20	27.12	19.2	21 49 31.3	30.9	10.7
28	ι Cancri	9	40 43.31	0.90	0.61	8 40 41.79	2.93	330 51 41.58	.....	10.8	29 7 22.3	....	8.8
29	ι Ursæ Majoris.....	9	52 27.85	1.89	[0.59]	8 52 25.34	3.55	311 33 28.40	28.28	10.4	48 25 56.9	59.3	4.5
30	σ^2 Ursæ Majoris.....	9	1 45.81	− 4.09	[−0.52]	9 1 41.10	−5.18	292 27 25.82	26.68	34.0	+67 32 22.9	24.4	+ 0.7

1900 MARCH 21. CLAMP EAST.

LITTELL, OBSERVER. UPDEGRAFF, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
31	24 Lyncis...........	9	34 41.80	− 2.97	[−2.22]	7 34 36.49	−3.68	301 2 56.65	55.40	22.0	+58 56 41.9	43.3	− 4.5
32	κ Geminorum	9	38 30.36	0.78	2.33	7 38 27.24	2.54	335 20 51.05	51.95	15.4	24 38 10.4	9.7	+ 6.2
33	φ Geminorum	9	47 28.56	0.87	2.35	7 47 25.36	2.62	332 57 42.10	42.28	12.7	27 1 22.1	22.0	6.2
34	ω^1 Cancri	9	54 58.66	− 0.82	−2.32	7 54 55.51	−2.64	334 19 8.80	10.20	14.2	+25 39 54.9	52.6	+ 7.0

Time. d	h m	Barom.	Att. Ther.	Ext. Ther.
		cm.	°	°
16	1 15	74.78	+2.2	+1.2
	7 37	75.29	−2.5	−3.8
	8 7	75.34	3.0	4.2
	8 55	75.41	3.8	4.8
	13 0	75.48	6.5	6.8
	13 56	75.48	6.1	6.2
17	1 10	75.76	3.5	5.0
	7 42	76.00	6.8	8.2
	8 24	76.02	7.2	8.6
	9 6	76.04	−7.8	−9.0
21	7 31	76.26	+1.1	+0.1

Bisections are made at II and VI, except as noted below.

1.	Bisections at c_1, c_2, c_4, and c_5.
2–15.	Bisections at III and V.
16, 18.	Bisection at IV.
17.	Bisections at d_1, c_5, c_1, and b_3.

Notes.

1, 17. Very diffuse and unsteady.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1, from nadir......	+43.7	+46.2
2–15, from stars	+45.8	+45.3
16–18, from nadir......	+41.8	+44.3
19–30, from stars	+43.9	+41.9
31–34, from stars	+41.7	+42.1

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
3	+45.1	+45.2
4	45.7	44.3
5	46.8	44.5
11	45.4	47.0
12	47.1	45.6
13	44.7	45.0
19	44.6	41.6
20	43.3	40.6
21	44.7	42.0
26	44.2	43.6
27	44.2	41.8
28	42.2	[44.6]
32	42.0	41.7
33	40.8	41.1
34	+42.7	+41.8

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Lal. 15839	9	1 58. 31	− 0. 77	−2. 33	8 1 55. 21	−2. 64	335 40 40. 45	42. 22	15. 7	+24 18 20. 7	19. 1	+ 7. 9
2	Lal. 16053	9	7 51. 94	0. 73	2. 32	8 7 48. 89	2. 65	336 32 48. 00	47. 45	16. 7	23 26 12. 2	12. 9	8. 5
3	W. B., VIII. 252	9	14 47. 11	0. 82	2. 32	8 14 43. 97	2. 72	334 20 5. 05	5. 55	14. 3	25 38 57. 5	57. 2	8. 1
4	Lal. 16554	9	21 37. 62	0. 73	2. 31	8 21 34. 58	2. 71	336 30 17. 70	18. 70	16. 7	23 28 42. 5	41. 7	9. 1
5	η Cancri	9	27 1. 31	− 0. 63	**−2. 37**	8 26 58. 37	−2. 68	339 12 15. 32	15. 00	19. 8	+20 46 41. 8	42. 3	+10. 3
6	γ Cancri	9	37 35. 78	− 0. 67	**−2. 34**	8 37 32. 80	−2. 74	338 9 26. 65	26. 55	18. 6	+21 49 31. 6	31. 9	+10. 5
7	ι Cancri	9	40 44. 92	0. 96	2. 21	8 40 41. 66	2. 88	330 51 43. 60	42. 15	10. 4	29 7 22. 9	24. 5	8. 5
8	ι Ursæ Majoris	9	52 29. 47	2. 00	**[2. 17]**	8 52 25. 17	3. 48	311 33 28. 88	25. 70	10. 1	48 25 58. 3	61. 3	+ 3. 9
9	σ^2 Ursæ Majoris	9	1 47. 52	− 4. 34	**[−2. 11]**	9 1 40. 88	−5. 05	292 27 25. 35	24. 82	33. 0	+67 32 24. 6	25. 0	− 0. 1

1900 MARCH 24. CLAMP EAST.

LITTELL, OBSERVER. UPDEGRAFF, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
10	24 Lyncis	9	34 41. 94	− 2. 18	**[−3. 25]**	7 34 36. 31	−3. 58	301 2 54. 42	55. 48	21. 4	+58 56 42. 0	43. 7	−4. 7
11	κ Geminorum	9	38 31. 20	0. 56	**3. 44**	7 38 27. 20	2. 49	335 20 49. 25	53. 15	15. 0	24 38 10. 6	9. 8	+6. 1
12	φ Geminorum	9	47 29. 35	0. 63	**3. 43**	7 47 25. 29	2. 57	332 57 39. 50	43. 45	12. 4	27 1 23. 0	22. 1	6. 0
13	Lal. 15590	9	55 9. 04	0. 54	3. 41	7 55 5. 09	2. 56	336 7 37. 30	42. 18	15. 8	23 51 21. 8	20. 0	7. 6
14	Lal. 15839	9	1 59. 07	0. 55	3. 40	8 1 55. 12	2. 59	335 40 39. 42	45. 12	15. 3	24 18 20. 2	17. 5	7. 8
15	Lal. 16053	9	7 52. 77	0. 53	3. 39	8 7 48. 85	2. 60	336 32 47. 25	50. 78	16. 3	23 26 11. 3	10. 9	8. 4
16	W. B., VII. 252	9	14 47. 86	− 0. 59	−3. 37	8 14 43. 90	−2. 67	334 20 3. 50	8. 60	13. 9	+25 38 57. 5	55. 4	+8. 0
17	Lal. 16554	9	21 38. 57	− 0. 53	−3. 36	8 21 34. 68	−2. 66	336 30 16. 55	20. 28	16. 3	+23 28 42. 0	41. 4	+9. 1
18	η Cancri	9	27 2. 09	0. 45	**3. 37**	8 26 58. 29	2. 64	339 12 14. 08	16. 82	19. 3	20 46 41. 5	41. 8	10. 1
19	γ Cancri	9	37 36. 50	0. 48	**3. 29**	8 37 32. 69	2. 70	338 9 24. 30	28. 08	18. 1	21 49 32. 5	31. 8	10. 3
20	ι Cancri	9	40 45. 74	0. 70	**3. 34**	8 40 41. 72	2. 83	330 51 41. 35	42. 62	10. 2	29 7 23. 3	25. 1	8. 3
21	ι Ursæ Majoris	8	52 30. 05	1. 46	**[3. 35]**	8 52 25. 29	3. 42	311 33 27. 25	27. 70	9. 9	48 25 57. 7	60. 0	+3. 5
22	σ^2 Ursæ Majoris	9	1 47. 18	− 3. 19	**[−3. 08]**	9 1 40. 70	−4. 94	292 27 22. 08	24. 28	32. 2	+67 32 25. 1	25. 7	−0. 7

1900 MARCH 27. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
23	β Andromedæ	9	4 13. 70	− 0. 93	**[−4. 48]**	1 4	....	354 53 41. 70	43. 55	3. 8	+35 5 32. 7	31. 4	....
24	α Ursæ Minoris	8	23 6. 75	64. 63	**[6. 56]**	1 21	....	271 13 45. 48	46. 62	68. 0	88 46 39. 2	39. 6	....
25	α Arietis	8	1 37. 81	0. 53	**[4. 58]**	2 1	....	336 57 31. 08	34. 22	16. 4	22 59 30. 8	26. 1	....
26	24 Lyncis	8	34 43. 03	2. 16	**[4. 45]**	7 34 36. 28	−3. 49	301 2 54. 38	.....	21. 1	58 56 42. 7	....	− 5. 0
27	κ Geminorum	9	38 32. 34	0. 56	**4. 64**	7 38 27. 20	2. 43	335 20 50. 25	.....	14. 8	24 38 11. 0	....	+ 6. 1
28	φ Geminorum	9	47 30. 38	0. 63	**4. 51**	7 47 25. 18	2. 52	332 57 41. 35	.....	12. 2	27 1 22. 4	....	5. 9
29	Lal. 15590	9	55 10. 03	− 0. 53	−4. 55	7 55 4. 95	−2. 51	336 7 39. 18	.....	15. 6	+23 51 21. 4	....	+ 7. 4
30	Lal. 16053	8	7 53. 83	− 0. 52	−4. 53	8 7 48. 78	−2. 56	336 32 48. 50	.....	16. 1	+23 26 11. 4	....	+ 8. 2
31	λ Cancri	9	14 43. 14	0. 55	4. 52	8 14 38. 07	2. 60	335 38 53. 52	.....	15. 1	24 20 7. 4	....	8. 2
32	η Cancri	8	27 3. 20	0. 45	**4. 58**	8 26 58. 25	2. 59	339 12 15. 32	.....	19. 0	20 46 41. 7	....	10. 1
33	γ Cancri	9	37 37. 61	0. 48	**4. 45**	8 37 32. 65	2. 65	338 9 24. 90	.....	17. 9	21 49 33. 2	....	10. 2
34	ι Cancri	9	40 46. 80	0. 69	**4. 46**	8 40 41. 64	2. 78	330 51 42. 90	.....	10. 0	29 7 23. 1	....	8. 0
35	ι Ursæ Majoris	9	52 31. 26	1. 46	**[4. 63]**	8 52 25. 35	3. 35	311 33 26. 75	.....	9. 8	48 25 59. 0	....	+ 3. 0
36	σ^2 Ursæ Majoris	9	1 48. 48	− 3. 17	**[−4. 47]**	9 1 40. 88	−4. 82	292 27 20. 82	.....	31. 8	+67 32 27. 0	....	− 1. 2

1900 MARCH 28. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
37	24 Lyncis	9	34 43. 47	− 2. 22	**[−4. 88]**	7 34 36. 30	−3. 44	301 2 53. 90	53. 52	21. 3	+58 56 43. 5	44. 6	−5. 0
38	κ Geminorum	9	38 32. 68	− 0. 57	**−4. 99**	7 38 27. 16	−2. 41	335 20 50. 80	52. 88	14. 9	+24 38 10. 3	9. 2	+6. 1

Time.		Barom.	Att. Ther.	Ext. Ther.
d	h m	cm.	°	°
21	8 31	76. 24	0. 3	−0. 4
	9 5	76. 22	0. 0	−0. 6
24	7 40	75. 65	7. 0	+4. 9
	8 17	75. 65	6. 0	4. 3
	9 13	75. 70	4. 7	3. 7
27	1 10	.....	...	9. 4
	1 45	75. 20	10. 0	9. 7
	7 28	75. 26	8. 6	7. 6
	8 45	75. 29	7. 1	6. 4
	9 3	75. 29	7. 1	6. 2
28	7 37	75. 66	7. 3	+6. 8

Bisections are made at II and VI, except as noted below.

8, 10, 21.	Bisections at III and V.
23, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36.	Bisection at IV.
24.	Bisections at b_3, c_1, c_5, and d_1.
29.	Bisection at VI.
32.	Bisection at V.
37.	Bisection at b_3, and d_1.

Notes.

23, 25, 29, 30, 31, 32. Very faint.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–9, from stars	+41. 7	+42. 1
10–22, from stars	+43. 7	+41. 2
23–25, from nadir	+41. 8	+41. 3
26–36, from stars	+44. 0	....
37–38, from stars	+42. 6	+42. 2

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
5	+42. 3	+43. 2
6	42. 1	42. 8
7	40. 3	42. 3
11	44. 1	40. 8
12	43. 5	40. 1
18	43. 8	41. 6
19	44. 8	41. 6
20	42. 5	41. 8
27	44. 8	....
28	43. 1	....
32	44. 3	....
33	45. 7	....
34	42. 3	....
38	+42. 7	+41. 2

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	φ Geminorum	9	47 30.78	− 0.64	−4.92	7 47 25.18	−2.50	332 57 40.68	42.22	12.3	+27 1 23.0	22.4	+ 5.9
2	Lal. 15590	9	55 10.49	0.55	4.96	7 55 4.98	2.49	336 7 39.52	40.28	15.7	23 51 21.2	21.0	7.3
3	W. B.₂ VII. 1646	9	2 26.17	0.61	4.97	8 2 20.59	2.56	334 8 35.05	37.30	13.6	25 50 27.3	26.0	7.0
4	Lal. 16053	7	7 54.28	0.54	4.97	8 7 48.77	2.54	336 32 48.10	49.58	16.2	23 26 11.7	11.2	8.1
5	W. B.₂ VIII. 252	9	14 49.41	0.60	4.98	8 14 43.83	2.61	334 20 3.98	6.35	13.8	25 38 58.2	56.8	7.7
6	Lal. 16554	9	21 40.08	− 0.54	−4.98	8 21 34.56	−2.60	336 30 18.65	19.35	16.2	+23 28 41.1	41.4	+ 8.8
7	η Cancri	9	27 3.63	− 0.46	−4.96	8 26 58.19	−2.58	339 12 14.60	14.65	19.2	+20 46 42.2	43.1	+10.1
8	γ Cancri	9	37 38.15	0.49	4.99	8 37 32.67	2.64	338 9 25.32	26.40	18.0	21 49 32.7	32.6	10.1
9	ι Cancri	9	40 47.37	0.71	5.02	8 40 41.67	2.77	330 51 42.72	42.88	10.1	29 7 23.1	23.9	8.0
10	ι Ursæ Majoris	9	52 31.70	1.49	[5.06]	8 52 25.21	3.33	311 33 25.65	23.40	9.8	48 26 0.3	3.2	+ 2.9
11	σ² Ursæ Majoris	9	1 48.98	− 3.25	[−4.93]	9 1 40.72	−4.78	292 27 21.45	22.60	32.1	+67 32 26.7	26.2	− 1.4

1900 MARCH 28. CLAMP EAST.

LITTELL, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
12	θ Virginis	9	4 54.27	+ 0.19	−5.15	13 4	....	4 58 55.52	55.08	55.6	− 5 0 32.8	35.0	....
13	α Ursæ Minoris S. P.	8	20 57.40	+64.95	7.19	1 21	....	268 47 15.51	13.62	76.3	+88 46 39.3	41.2	....
14	η Bootis	9	50 3.78	− 0.43	−5.10	13 49	....	341 4 17.98	14.00	21.5	+18 53 38.8	40.2	....

1900 MARCH 30. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
15	α Ursæ Minoris S. P.	9	20 52.88	+68.48	−6.56	1 21	....	268 47 15.78	14.40	76.6	+88 46 39.0	41.0	....
16	B. A. C. 4536	9	30 30.13	− 1.10	6.07	13 30	....	322 17 54.92	54.35	1.3	+37 41 22.4	20.7	....
17	m Virginis	9	36 30.59	+ 0.30	−6.09	13 36	....	8 10 23.42	24.05	63.9	− 8 12 8.7	11.5	....

1900 MARCH 31. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
18	24 Lyncis	9	34 45.02	− 2.36	[−6.39]	7 34 36.20	−3.34	301 2 54.30	53.12	21.4	+58 56 44.0	45.5	− 5.2
19	κ Geminorum	9	38 34.16	0.61	6.48	7 38 27.09	2.36	335 20 50.65	52.38	14.9	24 38 11.2	10.0	+ 5.9
20	φ Geminorum	9	47 32.31	0.69	6.45	7 47 25.15	2.45	332 57 42.22	42.48	12.4	27 1 22.1	22.4	5.8
21	Lal. 15590	9	55 11.99	0.59	6.47	7 55 4.93	2.43	336 7 39.58	40.42	15.8	23 51 21.4	21.1	7.1
22	W. B.₂ VII. 1646	9	2 27.72	0.65	6.48	8 2 20.59	2.50	334 8 36.32	37.45	13.7	25 50 26.8	26.2	+ 6.8
23	Bradley 1147	9	7 17.41	5.78	[6.50]	8 7 5.15	5.89	283 56 11.18	9.40	44.5	76 3 50.5	52.2	− 7.5
24	λ Cancri	9	14 45.13	− 0.60	−6.48	8 14 38.05	−2.53	335 38 53.85	56.85	15.3	+24 20 7.6	5.2	+ 7.9
25	ο Ursæ Majoris	9	22 10.39	− 2.58	[−6.37]	8 22 1.32	−3.80	298 56 30.22	28.85	24.0	+61 3 10.7	12.4	− 3.0
26	η Cancri	9	27 5.16	0.50	6.50	8 26 58.17	2.53	339 12 15.45	15.00	19.3	20 46 42.0	43.1	+ 9.9
27	γ Cancri	9	37 39.66	0.53	6.51	8 37 32.63	2.59	338 9 25.50	27.68	18.1	21 49 33.2	31.6	10.0
28	ι Cancri	9	40 48.83	0.76	6.48	8 40 41.57	2.72	330 51 42.80	41.82	10.2	29 7 23.8	25.3	7.7
29	ι Ursæ Majoris	8	52 33.16	1.59	[6.48]	8 52 25.06	3.27	311 33 25.70	24.78	9.9	48 26 1.2	2.4	+ 2.5
30	σ² Ursæ Majoris	9	1 50.63	− 3.46	[−6.49]	9 1 40.66	−4.66	292 27 21.32	20.90	32.2	+67 32 27.8	28.4	− 1.9

1900 APRIL 1. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
31	24 Lyncis	9	34 45.27	− 2.00	[−7.04]	7 34 36.18	−3.30	301 2 54.52	....	21.0	+58 56 43.4	....	− 5.3
32	κ Geminorum	9	38 34.68	0.51	7.12	7 38 27.07	2.34	335 20 51.12	....	14.7	24 38 11.1	....	+ 5.9
33	φ Geminorum	9	47 32.81	0.58	7.08	7 47 25.13	2.43	332 57 42.42	....	12.2	27 1 22.3	....	5.8
34	ω' Cancri	9	55 2.98	− 0.54	−7.11	7 54 55.33	−2.45	334 19 9.50	....	13.6	+25 39 53.8	....	6.5

Time. d	Time. h m	Barom.	Att. Ther.	Ext. Ther.
		cm.	°	°
28	8 13	75.68	6.5	6.3
	8 58	75.67	5.6	5.2
	13 0	.....	....	3.8
	13 46	75.70	4.3	4.1
30	13 12	75.12	1.3	0.6
	14 0	75.10	1.3	0.5
31	7 33	75.56	5.7	5.3
	8 10	75.59	5.1	4.4
	8 55	75.62	4.5	3.9
1	7 47	75.80	11.2	10.0

Bisections are made at II and VI, except as noted below.

2.	Bisections at c_3 and VI.
10, 11, 18, 30.	Bisections at III and V.
12, 14, 16, 17, 31, 32, 33, 34.	Bisection at IV.
13, 15.	Bisections at V, c_5, c_1 and III.
23.	Bisections at IV and V.

Notes.

13, 15. Through clouds.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–11, from stars	+42.6	+42.2
12–14, from nadir	+41.7	+44.3
15–17, from nadir	+41.4	+43.6
18–30, from stars	+41.8	+41.8
31–34, from stars	+43.1	....

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+42.3	+41.3
7	43.4	43.9
8	43.7	43.2
9	40.9	41.3
19	42.6	41.4
20	40.5	40.8
26	42.2	43.3
27	43.3	41.7
28	40.5	+42.0
32	43.8	....
33	42.0	....
34	+43.5	....

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	W. B.₂ VII. 1646	9	2 28.22	−0.54	− 7.11	8 2 20.57	−2.49	334 8 35.90	....	13.5	+25 50 27.5	....	+ 6.8
2	Bradley 1147	9	7 16.98	4.89	**[7.08]**	8 7 4.97	5.82	283 56 9.82	....	43.8	76 3 50.9	....	− 7.6
3	λ Cancri	5	14 45.57	0.50	7.12	8 14 37.95	2.51	335 38 54.45	....	15.1	24 20 7.3	....	+ 7.9
4	ο Ursæ Majoris	9	22 10.53	2.18	**[6.95]**	8 22 1.22	3.76	298 56 30.15	....	23.6	61 3 10.3	....	− 3.1
5	η Cancri	9	27 5.69	0.41	**7.14**	8 26 58.15	2.51	339 12 16.28	....	19.0	20 46 41.6	....	+ 9.9
6	γ Cancri	9	37 40.14	0.44	**7.10**	8 37 32.56	2.57	338 9 25.80	....	17.8	21 49 33.3	....	10.0
7	ι Cancri	9	40 49.39	−0.64	− **7.17**	8 40 41.61	−2.71	330 51 43.65	....	10.0	+29 7 23.3	....	+ 7.7

1900 APRIL 3. CLAMP EAST.

LITTELL, OBSERVER. UPDEGRAFF, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
8	24 Lyncis	9	34 45.89	−1.74	**[− 7.99]**	7 34 36.03	−3.23	301 2 54.72	54.52	20.9	+58 56 42.1	43.9	−5.4
9	κ Geminorum	9	38 35.56	0.44	**8.10**	7 38 27.00	2.31	335 20 50.58	53.10	14.6	24 38 10.6	9.9	+5.9
10	φ Geminorum	9	47 33.74	0.50	**8.12**	7 47 25.14	2.40	332 57 40.60	42.80	12.1	27 1 23.1	22.7	5.7
11	Lal. 15590	9	55 13.37	0.42	8.10	7 55 4.85	2.38	336 7 38.38	41.65	15.5	23 51 21.9	20.5	7.1
12	W. B.₂ VII. 1646	7	2 28.93	0.47	8.09	8 2 20.37	2.44	334 8 35.12	.....	13.4	25 50 27.2	....	+6.8
13	Bradley 1147	9	7 16.81	−4.25	**[− 7.66]**	8 7 4.48	−5.66	283 56 9.52	10.02	43.5	+76 3 49.7	50.8	−7.8
14	λ Cancri	9	14 46.42	−0.43	− 8.07	8 14 37.92	−2.48	335 38 53.20	57.42	15.0	+24 20 7.6	5.2	+7.9
15	ο Ursæ Majoris	9	22 11.09	1.89	**[7.87]**	8 22 1.14	3.69	298 56 29.05	29.20	23.4	61 3 10.3	11.7	−3.3
16	η Cancri	9	27 6.50	0.35	**8.04**	8 26 58.09	2.48	339 12 15.32	16.55	18.9	20 46 41.6	42.2	+9.8
17	γ Cancri	9	37 40.98	0.38	**8.08**	8 37 32.56	2.54	338 9 24.72	27.65	17.7	21 49 33.4	32.3	9.9
18	ι Cancri	9	40 50.17	−0.55	− **8.07**	8 40 41.58	−2.68	330 51 41.72	42.35	9.9	+29 7 24.1	25.4	+7.5

1900 APRIL 5. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
19	κ Geminorum	9	38 37.73	−0.26	**−10.49**	7 38 27.00	−2.27	24 38 26.50	.....	14.6	+24 38 9.7	....	+5.8
20	φ Geminorum	9	47 35.81	0.28	**10.45**	7 47 25.06	2.36	27 1 38.05	.....	12.1	27 1 23.8	....	5.6
21	Lal. 15590	9	55 15.60	0.25	10.48	7 55 4.87	2.34	23 51 38.85	.....	15.5	23 51 21.2	....	7.1
22	W. B.₂ VII. 1646	9	2 31.17	0.27	10.49	8 2 20.41	2.41	25 50 41.75	.....	13.4	25 50 26.2	....	+6.8
23	Bradley 1147	9	7 17.01	−1.68	**[−10.69]**	8 7 4.84	−5.40	76 3 9.85	.....	43.5	+76 3 51.2	....	−8.0
24	λ Cancri	9	14 48.69	−0.26	−10.50	8 14 37.93	−2.44	24 20 22.70	.....	15.0	+24 20 5.5	....	+7.9
25	ο Ursæ Majoris	6	22 12.48	0.78	**[10.44]**	8 22 1.19	3.62	61 2 52.32	.....	23.4	61 3 13.5	....	−3.5
26	η Cancri	9	27 8.83	0.23	**10.52**	8 26 58.09	2.45	20 47 2.98	.....	18.9	20 46 41.9	....	+9.7
27	γ Cancri	9	37 43.30	0.24	**10.52**	8 37 32.54	2.51	21 49 51.80	.....	17.7	21 49 31.9	....	9.7
28	ι Cancri	9	40 52.31	−0.29	**−10.51**	8 40 41.50	−2.64	29 7 38.32	.....	9.9	+29 7 26.2	....	+7.4

1900 APRIL 5. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
29	ζ Hydræ	9	50 19.62	−0.14	**−10.56**	8 50	....	6 19 57.65	58.00	36.8	+ 6 19 18.6	21.2	...
30	10 Ursæ Majoris	9	54 22.94	0.42	**10.58**	8 54	....	42 10 37.18	37.45	3.3	42 10 38.0	40.8	...
31	κ Ursæ Majoris	9	57 2.17	0.49	**10.46**	8 56	....	47 32 58.98	57.35	8.8	47 33 5.3	6.2	...
32	σ² Ursæ Majoris	9	1 51.98	1.02	**10.49**	9 1	....	67 31 57.55	56.88	31.4	67 32 26.4	28.2	...
33	θ Hydræ	9	9 22.88	0.12	**10.57**	9 9	....	2 44 39.18	36.45	42.1	2 43 54.8	54.3	...
34	40 Lyncis	9	15 11.66	0.34	**10.54**	9 15	....	34 48 54.42	53.98	4.1	34 48 47.9	49.7	...
35	1 H. Draconis	9	23 14.21	2.87	**10.72**	9 23	....	81 45 20.50	16.45	53.4	81 46 11.0	9.4	...
36	θ Ursæ Majoris	9	26 24.81	−0.57	**−10.48**	9 26	....	52 7 45.52	43.05	13.5	+52 7 56.5	56.6	...
37	10 Leonis Minoris	7	28 19.96	−0.36	**−10.66**	9 28	....	36 50 27.32	25.22	2.1	+36 50 22.7	23.4	...
38	ο Leonis	9	36 2.25	0.16	**10.60**	9 35	....	10 21 9.68	7.75	31.4	10 20 36.0	36.3	...
39	ε Leonis	9	40 24.28	0.26	**10.64**	9 40	....	24 14 11.02	8.90	15.1	24 13 53.5	53.7	...
40	υ Ursæ Majoris	9	44 8.13	0.73	**10.52**	9 43	....	59 30 10.90	10.68	21.7	+59 30 30.1	32.4	...
41	6 Sextantis	9	46 24.95	0.09	**10.57**	9 46	....	356 14 7.02	5.95	53.2	− 3 46 48.4	47.2	...
42	Groombridge 1586	9	49 44.68	1.40	**10.60**	9 49	....	73 20 40.52	40.35	39.5	+73 21 17.4	19.7	...
43	19 Leonis Minoris	9	51 47.83	−0.42	**−10.58**	9 51	....	41 31 46.52	45.30	2.6	+41 31 46.7	48.0	...

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
1 8 20	75.80	10.3	9.2
9 29	75.82	9.3	8.3
3 7 40	75.46	11.2	10.4
8 17	75.45	10.5	10.0
5 7 45	75.77	12.0	11.8
8 30	75.79	11.2	11.1
9 8	75.75	10.5	10.6

Bisections are made at II and VI, except as noted below.

1–7, 19–28.	Bisection at IV.
30, 31, 32, 35, 36, 40, 42.	Bisections at III and V.
37.	Bisections at IV and VI.

Notes.

12. Through clouds; faint.
37. Hurried.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–7, from stars	+43.1	....
8–18, from stars	+42.8	+41.5
19–28, from stars	− 2.2	....
29–43, from nadir	− 3.5	− 0.7

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
5	+43.1	....
6	44.7	....
7	41.3	....
9	43.0	+41.0
10	42.4	40.7
16	42.7	42.0
17	44.4	42.6
18	+41.6	+41.6
19	− 1.4	....
20	2.4	....
26	2.3	....
27	2.1	....
28	− 3.0	....

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	π Leonis	9	55 9.18	−0.15	**−10.56**	9 54	....	8 31 46.45	44.58	33.8	+ 8 31 10.4	10.7	....
2	η Leonis	9	2 6.51	0.21	**10.67**	10 1	....	17 15 12.30	11.10	22.9	+17 14 47.1	48.1	....
3	λ Hydræ	9	5 56.06	−0.04	**10.60**	10 5	....	348 9 14.48	14.70	70.6	−11 51 58.3	55.8	....
4	24 Cephei s. P	8	8 0.69	+1.28	**10.60**	22 7	....	108 6 41.25	37.22	150.6	+71 50 50.6	51.6	...
5	λ Ursæ Majoris	9	11 18.32	−0.44	**10.50**	10 11	....	43 24 40.02	37.20	4.5	43 24 42.1	41.8	....
6	μ Ursæ Majoris	9	16 36.61	0.42	**10.52**	10 16	....	41 59 58.95	59.08	3.1	41 59 59.6	62.3	....
7	31 Leonis Minoris	9	22 20.28	−0.37	**−10.58**	10 22	....	37 13 5.80	3.22	1.7	+37 13 1.6	1.3	....
8	36 Ursæ Majoris	9	24 28.87	−0.66	**−10.54**	10 24	....	56 29 14.62	13.55	18.3	+56 29 30.4	31.9	....
9	9 H. Draconis	9	26 55.12	1.70	**10.52**	10 26	....	76 12 58.30	54.82	43.9	+76 13 39.5	38.5	....
10	33 Sextantis	9	36 32.48	0.10	**10,65**	10 36	....	358 47 35.85	31.95	48.6	− 1 13 15.0	16.6	....
11	42 Leonis Minoris	9	40 32.31	0.31	**10.59**	10 40	....	31 12 31.42	27.40	7.8	+31 12 21.2	19.4	....
12	*l* Leonis	9	44 13.76	−0.17	**10.56**	10 44	....	11 4 44.40	40.62	30 5	11 4 11.6	10.1	....
13	ι Cephei s. P	5	46 15.65	+0.94	**10.37**	22 46	....	114 15 56.52	57.75	217.0	65 40 29.0	24.9	....
14	Groombridge 1706	9	52 17.98	−2.01	**−10.76**	10 52	....	78 17 33.35	29.75	47.3	+78 18 17.9	16.8	....
15	α Ursæ Majoris	9	57 49.25	−0.81	**−10.56**	10 57	...	62 16 58.70	56.12	24.9	+62 17 21.1	21.0	....
16	χ Leonis	9	0 5.19	0.15	**10.61**	10 59	....	7 52 55.52	51.90	34.7	7 52 18.5	17.2	....
17	p^3 Leonis	7	2 1.79	0.12	**10.60**	11 1	....	2 30 20.28	18.32	42.5	2 29 35.5	35.8	....
18	ψ Ursæ Majoris	7	4 16.92	0.46	**10.43**	11 4	....	45 2	11.72	6.2	45 2	18.0	....
19	ν Ursæ Majoris	9	13 18.84	0.33	**10.62**	11 13	....	33 38 17.38	18.45	5.3	33 38 9.6	12.9	....
20	Groombridge 1771	9	17 11.01	0.91	**10.64**	11 16	....	64 52 7.20	5.30	28.1	64 52 32.7	33.4	....
21	τ Leonis	9	23 1.36	−0.12	**−10.62**	11 22	....	3 24 49.65	47.42	41.1	+ 3 24 6.3	6.3	....
22	λ Draconis	9	25 45.22	−1.15	**−10.65**	11 25	....	69 52 18.05	15.52	34.6	+69 52 50.0	50.0	....
23	ξ Hydræ	9	28 18.66	+0.06	**10.65**	11 28	....	328 44 3.38	1.38	158.6	−31 18 37.3	37.0	....
24	υ Leonis	9	32 3.42	−0.10	**10.65**	11 31	....	359 44 13.20	9.58	47.0	− 0 16 36.0	37.4	....
25	3 Draconis	9	37 10.18	1.01	**10.55**	11 36	....	67 17 16.65	14.68	31.1	+67 17 45.2	45.7	....
26	χ Ursæ Majoris	9	41 0.83	0.50	**10.51**	11 40	....	48 19 43.02	41.60	9.6	48 19 50.1	51.2	....
27	β Leonis	9	44 11.41	0.19	**10.65**	11 44	....	15 8 2.30	0.65	25.4	15 7 34.6	35.2	....
28	γ Ursæ Majoris	9	48 49.31	−0.61	**−10.59**	11 48	....	54 14 38.55	35.78	15.8	+54 14 51.8	51.6	....

1900 APRIL 7. CLAMP WEST.

LITTELL, OBSERVER. UPDEGRAFF, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
29	ζ Hydræ	9	50 20.67	−0.09	**−11.69**	8 50	....	6 19 56.75	55.00	35.7	+ 6 19 19.5	20.4	....
30	10 Ursæ Majoris	9	54 23.71	+0.03	**11.80**	8 54	....	42 10 37.78	38.10	3.2	42 10 39.5	42.2	....
31	κ Ursæ Majoris	9	57 2.83	0.04	**11.70**	8 56	....	47 32 59.82	56.65	8.5	47 33 6.9	6.0	....
32	σ² Ursæ Majoris	9	1 51.86	+0.17	**11.65**	9 1	....	67 31 59.20	56.62	30.5	67 32 28.1	27.9	....
33	θ Hydræ	9	9 23.98	−0.10	**11.71**	9 9	....	2 44 38.60	34.80	40.9	2 43 56.2	55.0	....
34	40 Lyncis	9	15 12.42	0.00	**−11.68**	9 15	....	34 48 56.48	53.70	4.0	+34 48 50.8	50.6	....
35	1 H. Draconis	7	23 11.41	+0.49	**−11.52**	9 23	....	81 45 21.30	17.12	51.9	+81 46 11.3	9.5	....
36	θ Ursæ Majoris	9	26 25.32	+0.06	**11.68**	9 26	....	52 7 45.78	42.85	13.1	52 7 57.4	56.8	....
37	10 Leonis Minoris	9	28 20.54	0.00	**11.68**	9 28	....	36 50 26.48	25.62	2.0	36 50 23.0	24.5	....
38	ο Leonis	9	36 3.27	−0.08	**11.72**	9 35	....	10 21 8.35	5.95	30.5	10 20 36.3	36.5	....
39	ε Leonis	9	40 25.11	−0.04	**11.72**	9 40	....	24 14 11.72	8.18	14.7	24 13 55.4	54.5	....
40	υ Ursæ Majoris	9	44 8.40	+0.08	**−11.66**	9 43	....	59 30 11.50	9.48	21.0	+59 30 31.0	31.3	....
41	6 Sextantis	9	46 26.14	−0.12	**−11.76**	9 46	....	356 14 6.42	4.12	51.6	− 3 46 46.7	46.3	....
42	Groombridge 1586	9	49 44.24	+0.20	**11.87**	9 49	....	73 20	39.42	38.4	+73 21	18.5	....
43	19 Leonis Minoris	9	51 48.57	+0.01	**11.75**	9 51	....	41 31 46.38	44.52	2.6	+41 31 47.5	48.0	....
44	π Leonis	9	55 10.26	−0.08	**11.73**	9 54	....	8 31 46.92	43.28	32.9	8 31 12.5	11.5	....
45	η Leonis	9	2 7.44	0.06	**11.77**	10 1	....	17 15 12.38	9.78	22.3	+17 14 48.5	48.5	....
46	λ Hydræ	9	5 57.30	−0.14	**−11.77**	10 5	....	348 9 13.90	12.12	68.6	−11 51 56.1	55.3	....
47	24 Cephei s. P	9	8 3.37	−0.17	**−11.72**	22 7	....	108 6 43.70	41.80	146.4	+71 50 50.8	50.9	....
48	λ Ursæ Majoris	9	11 19.04	+0.01	**11.70**	10 11	....	43 24 39.60	36.40	4.4	43 24 42.6	41.7	....
49	μ Ursæ Majoris	9	16 37.32	0.00	**11.65**	10 16	....	41 59 58.42	58.40	3.0	42 0 0.0	2.3	....
50	31 Leonis Minoris	9	22 20.97	−0.01	**11.66**	10 22	....	37 13 4.18	2.18	1.7	37 13 0.7	1.4	....
51	36 Ursæ Majoris	9	24 29.33	+0.05	**11.75**	10 24	....	56 29 14.30	11.62	17.8	56 29 30.6	30.3	....
52	9 H. Draconis	9	26 54.54	+0.21	**−11.98**	10 26	....	76 12 58.75	55.62	42.7	+76 13 39.8	39.0	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
5 9 58	75.75	10.0	10.5
10 40	75.70	9.7	....
10 55	75.69	9.7	10.4
11 46	75.64	9.2	10.5
7 8 47	74.86	16.3	16.2
9 33	74.90	15.6	15 4
10 13	74.89	15.0	15.2

Bisections are made at II and VI, except as noted below.

4, 5, 6, 8, 9, 14, 15, 20, 22, 25, 26, 28, 30, 31, 32, 35, 36, 37, 40, 42, 43, 47, 48, 49, 51, 52. } Bisections at III and V.
13. Bisections at c_4 and V.
18. Bisection at b_3.

Notes.

4. First bisection 5ˢ late.
10. Unsteady.
13. Last bisection 5ˢ late.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–28, from nadir	−3.5	−0.7
29–52, from nadir	−2.2	−0.2

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	33 Sextantis	9	36 33.61	−0.11	**−11.79**	10 36	....	358 47 33.12	30.10	47.3	− 1 13 15.7	16.1	....
2	42 Leonis Minoris	9	40 33.12	0.03	**11.69**	10 40	....	31 12 31.82	27.60	7.6	+31 12 22.5	20.9	....
3	*l* Leonis	9	44 14.79	0.08	**11.76**	10 44	....	11 4 44.52	39.90	29.6	11 4 13.4	11.4	....
4	ι Cephei S. P	9	46 18.09	−0.09	**11.78**	22 46	....	114 16 2.12	0.45	211.1	65 40 27.7	27.6	....
5	Groombridge 1706	9	52 16.68	+0.22	**11.80**	10 52	....	78 17 32.90	29.95	46.0	78 18 17.2	16.6	....
6	α Ursæ Majoris	9	57 49.51	+0.06	**11.78**	10 57	....	62 16 58.68	55.68	24.3	62 17 21.5	20.8	....
7	χ Leonis	9	0 6.26	−0.09	**−11.75**	10 59	....	7 52 55.05	51.40	33.8	+ 7 52 19.7	18.7	....
8	p^3 Leonis	9	2 2.89	−0.10	**−11.78**	11 1	....	2 30 23.50	17.08	41.4	+ 2 29 35.6	36.8	....
9	ψ Ursæ Majoris	9	4 17.65	0.00	**11.65**	11 4	....	45 2 13.38	11.20	6.0	+45 2 17.9	18.1	....
10	β Crateris	9	6 59.22	0.18	**11.78**	11 6	....	327 44 34.00	30.25	101.7	−22 17 9.1	10.2	....
11	δ Leonis	9	9 2.22	0.06	**11.70**	11 8	....	21 4 23.75	20.40	18.1	+21 4 4.0	3.3	....
12	ν Ursæ Majoris	9	13 19.58	−0.03	**11.67**	11 13	....	33 38 20.20	18.22	5.2	33 38 13.3	13.9	....
13	Groombridge 1771	9	17 11.07	+0.06	**11.72**	11 16	....	64 52 7.10	4.35	27.3	64 52 32.9	32.5	....
14	τ Leonis	9	23 2.44	−0.10	**−11.78**	11 22	....	3 24 50.62	46.38	40.1	+ 3 24 9.0	7.4	....
15	λ Draconis	9	25 45.03	+0.09	**−11.75**	11 25	....	69 52 20.52	15.85	33.7	+69 52 52.6	50.3	....
16	ξ Hydræ	9	28 20.08	−0.21	**11.82**	11 28	....	328 43 60.05	55.80	154.5	−31 18 35.8	37.4	....
17	υ Leonis	9	32 4.52	−0.11	**11.75**	11 31	....	359 44 11.80	8.18	45.8	− 0 16 35.5	36.5	....
18	3 Draconis	9	37 10.27	+0.06	**11.75**	11 36	....	67 17 16.82	13.28	30.3	+67 17 45.6	44.4	....
19	χ Ursæ Majoris	9	41 1.47	0.00	**11.66**	11 40	....	48 19 42.20	41.70	9.3	48 19 50.0	51.9	....
20	β Leonis	9	44 12.36	−0.07	**11.78**	11 44	....	15 7 62.40	59.58	24.8	15 7 36.0	35.8	....
21	γ Ursæ Majoris	9	48 49.73	+0.01	**−11.65**	11 48	....	54 14 38.92	36.52	15.4	+54 14 52.8	52.8	....

1900 APRIL 9. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED TO 1900.0
22	ζ Hydræ	9	50 20.87	−0.11	**−11.90**	8 50	....	6 19 55.45	57.75	37.1	+ 6 19 19.2	20.1	....
23	10 Ursæ Majoris	9	54 24.02	0.18	**11.94**	8 54	....	42 10 35.55	39.20	3.3	42 10 39.8	41.7	....
24	κ Ursæ Majoris	9	57 3.27	0.21	**11.93**	8 56	....	47 32 56.22	57.98	8.8	47 33 6.0	6.0	....
25	σ^2 Ursæ Majoris	9	1 52.63	0.40	**11.94**	9 1	....	67 31 56.08	57.95	31.7	67 32 28.6	28.8	....
26	θ Hydræ	9	9 24.23	0.11	**11.98**	9 9	....	2 44 36.48	37.48	42.4	2 43 55.0	54.5	....
27	40 Lyncis	9	15 12.82	0.17	**11.94**	9 15	....	34 48 53.12	53.05	4.2	34 48 49.6	48.1	....
28	1 H. Draconis	9	23 13.19	−1.14	**−11.92**	9 23	....	81 45 17.78	17.42	53.9	+81 46 12.2	10.1	....
29	θ Ursæ Majoris	8	26 25.76	−0.25	**−11.86**	9 26	....	52 7 43.58	43.98	13.7	+52 7 58.2	56.9	....
30	10 Leonis Minoris	7	28 20.96	0.18	**11.90**	9 28	....	36 50 24.78	26.40	2.1	36 50 23.9	23.5	....
31	ο Leonis	9	36 3.54	0.12	**11.98**	9 35	....	10 21 6.85	7.42	31.7	10 20 36.0	35.1	....
32	ε Leonis	9	40 25.43	0.15	**11.96**	9 40	....	24 14 9.98	9.98	15.3	24 13 55.4	54.0	....
33	υ Ursæ Majoris	9	44 9.00	0.32	**11.92**	9 43	....	59 30 8.32	11.25	21.9	+59 30 31.1	32.3	....
34	6 Sextantis	9	46 26.27	0.10	**11.93**	9 46	....	356 14 5.30	6.70	53.6	− 3 46 47.4	47.4	....
35	Groombridge 1586	9	49 45.24	−0.60	**−12.18**	9 49	....	73 20 37.95	41.65	39.9	+73 21 18.6	20.6	....
36	19 Leonis Minoris	7	51 49.01	−0.20	**−12.01**	9 51	....	41 31 44.35	46.80	2.7	+41 31 48.2	48.5	....
37	π Leonis	9	55 10.48	0.12	**11.94**	9 54	....	8 31 45.22	45.05	34.2	8 31 11.9	10.2	....
38	η Leonis	9	2 7.79	0.13	**12.07**	10 1	....	17 15 10.98	11.45	23.1	+17 14 48.7	47.7	....
39	λ Hydræ	9	5 57.45	−0.09	**11.99**	10 5	....	348 9 13.18	15.30	71.3	−11 51 57.1	56.5	....
40	24 Cephei S. P	7	8 2.86	+0.58	**11.84**	22 7	....	108 6 35.98	37.10	152.2	+71 50 50.3	51.4	....
41	λ Ursæ Majoris	9	11 19.46	−0.22	**11.92**	10 11	....	43 24 37.95	39.10	4.6	43 24 43.5	42.9	....
42	μ Ursæ Majoris	9	16 37.72	−0.22	**−11.89**	10 16	....	41 59 57.15	60.00	3.1	+42 0 1.2	2.3	....
43	31 Leonis	9	22 21.41	−0.20	**−11.94**	10 22	....	37 13 3.30	4.82	1.7	+37 13 2.3	2.3	....
44	36 Ursæ Majoris	9	24 29.77	0.32	**11.86**	10 24	....	56 29 11.60	13.15	18.5	56 29 31.0	30.8	....
45	9 H. Draconis	9	26 55.44	0.80	**11.98**	10 26	....	76 12 54.88	56.88	44.5	+76 13 40.1	40.4	....
46	33 Sextantis	9	36 33.76	0.10	**11.96**	10 36	....	358 47	32.42	49.2	− 1 13	17.3	....
47	42 Leonis Minoris	9	40 33.51	0.18	**11.96**	10 40	....	31 12 29.25	29.10	7.9	+31 12 22.3	20.5	....
48	*l* Leonis	9	44 15.02	−0.13	**11.95**	10 44	....	11 4 43.28	40.20	30.9	11 4 13.2	8.7	....
49	ι Cephei S. P	9	46 17.74	+0.46	**−11.85**	22 46	....	114 15 51.82	54.15	220.2	+65 40 26.5	26.5	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
7 11 10	74.89	14.8	14.6
11 52	74.90	14.5	14.9
9 8 45	75.54	9.0	8.2
9 12	75.57	8.5	7.8
9 59	75.60	7.8	7.4

Bisections are made at II and VI, except as noted below.

4, 5, 6, 9, 13, 15, 18, 19, 21, 23, 24, 25, 28, 29, 33, 35, 41, 42, 44, 45, 49.	Bisections at III and V.
30.	Bisections at IV and VI.
36.	Bisections at IV and VII.
40.	Bisections at III and d_1.
47.	Bisections at III and VI.

Notes.

10. Very unsteady.
16. Fuzzy.
40. First bisection hurried.

Adopted Equator Point Corrections.

	A. ″	B. ″
1–21, from nadir	−2.2	−0.2
22–49, from nadir	+0.2	−1.8

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Groombridge 1706.	9	52 17.87	− 0.99	−11.91	10 52	....	78 17	30.22	48.0	+78 18 18.9	17.1	....
2	α Ursæ Majoris.....	9	57 50.24	0.42	12.08	10 57	....	62 16 55.95	55.92	25.3	62 17 [illegible]2.1	20.4	....
3	χ Leonis...........	9	0 6.48	0.12	11.95	10 59	....	7 52 53.88	53.70	35.3	7 52 19.4	17.8	....
4	p^3 Leonis...........	9	2 3.09	0.11	11.93	11 1	....	2 30 18.48	19.50	43.2	2 29 36.2	35.7	....
5	ψ Ursæ Majoris.....	9	4 18.08	0.25	11.85	11 4	....	45 2 10.95	14.05	6.3	+45 2 18.2	19.6	....
6	β Crateris..........	9	6 59.30	0.07	11.98	11 6	....	337 44 36.22	36.52	106.1	−22 17 8.9	10.0	....
7	δ Leonis...........	9	9 2.56	− 0.15	−11.96	11 8	....	21 4 22.70	22.20	18.9	+21 4 4.6	2.5	....
8	ν Ursæ Majoris.....	9	13 19.98	− 0.20	−11.91	11 13	....	33 38 17.72	17.70	5.4	+33 38 13.0	11.5	....
9	Groombridge 1771.	9	17 11.79	0.48	11.94	11 16	....	64 52 4.22	6.35	28.5	64 52 33.6	34.0	....
10	τ Leonis...........	9	23 2.68	0.11	11.97	11 22	....	3 24 48.55	48.95	41.8	3 24 7.6	6.6	....
11	λ Draconis.........	9	25 46.01	0.61	12.08	11 25	....	69 52 18.52	17.02	35.2	+69 52 54.5	51.3	....
12	ξ Hydræ............	9	28 20.09	0.06	11.99	11 28	....	328 44 4.65	3.70	161.4	−31 18 35.7	38.1	....
13	υ Leonis...........	9	32 4.71	0.11	11.95	11 31	....	359 44 10.95	10.95	47.8	− 0 16 36.0	37.4	....
14	3 Draconis.........	9	37 11.11	− 0.55	−12.02	11 36	....	67 17 14.62	14.90	31.7	+67 17 47.2	45.7	....
15	χ Ursæ Majoris.....	9	41 1.96	− 0.29	−11.88	11 40	....	48 19 41.22	42.48	9.7	+48 19 51.9	51.4	....
16	β Leonis...........	9	44 12.73	0.14	12.04	11 44	....	15 8 0.72	0.78	25.8	15 7 35.7	34.3	....
17	γ Ursæ Majoris.....	9	48 50.34	0.35	11.92	11 48	....	54 14 36.48	37.45	16.1	+54 14 53.5	52.7	....
18	ε Virginis..........	9	57 27.04	0.14	11.93	12 57	....	11 30 [illegible].15	2.10	30.6	+11 29 30.9	30.8	....
19	θ Virginis..........	9	5 1.47	− 0.10	11.97	13 4	....	355 0 17.98	21.92	56.8	− 5 0 37.5	35.6	....
20	α Ursæ Minoris S. P.	7	21 54.34	+12.41	−11.95	1 21	....	91 12 4.68	3.62	76.4	+88 46 35.5	39.1	....

1900 APRIL 10. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

21	ζ Hydræ............	9	50 21.36	−0.13	−12.39	8 50	....	6 19 55.92	57.62	37.7	+ 6 19 20.1	19.8	....
22	10 Ursæ Majoris.....	9	54 24.62	0.36	12.38	8 54	....	42 10 35.42	38.75	3.4	42 10 40.8	41.8	....
23	κ Ursæ Majoris.....	9	57 3.86	0.42	12.34	8 56	....	47 32 55.88	56.92	9.0	47 33 6.8	5.6	....
24	σ^2 Ursæ Majoris.....	9	1 53.38	0.87	12.27	9 1	....	67 31 53.92	56.72	32.2	67 32 28.0	28.5	....
25	θ Hydræ............	9	9 24.66	0.12	12.41	9 9	....	2 44 36.62	36.90	43.1	2 43 55.4	53.7	....
26	40 Lyncis...........	9	15 13.43	0 30	12.44	9 15	....	34 48 52.40	53.90	4.2	34 48 49.9	49.4	....
27	1 H. Draconis......	9	23 14.78	−2.49	−12.29	9 23	....	81 45 15.28	16.58	54.7	+81 46 11.5	10.5	....
28	θ Ursæ Majoris.....	9	26 26.42	−0.50	−12.29	9 26	....	52 7 41.48	43.30	13.9	+52 7 57.3	56.8	....
29	10 Leonis Minoris....	9	28 21.50	0.32	12.32	9 28	....	36 50 23.48	26.75	2.1	36 50 23.3	24.3	....
30	ο Leonis...........	9	36 3.95	0.16	12.36	9 35	....	10 21 6.50	7.50	32.1	10 20 36.2	35.2	....
31	ε Leonis...........	9	40 25.94	0.23	12.40	9 40	....	24 14 8.50	9.42	15.5	24 13 54.7	53.7	....
32	υ Ursæ Majoris.....	9	44 9.69	0.66	12.30	9 43	....	59 30 7.78	10.80	22.2	+59 30 31.9	32.6	....
33	6 Sextantis.........	9	46 26.69	0.09	12.37	9 46	....	356 14 6.45	7.25	54.4	− 3 46 46.0	47.2	....
34	Groombridge 1586.	9	49 46.15	−1.26	−12.48	9 49	....	73 20 37.18	39.85	40.5	+73 21 19.5	19.8	....
35	19 Leonis Minoris....	7	51 49.61	−0.38	−12.45	9 51	....	41 31 43.98	46.20	2.7	+41 31 48.9	48.6	....
36	π Leonis...........	9	55 10.92	0.15	12.36	9 54	....	8 31 45.08	44.78	34.6	8 31 12.3	10.0	....
37	η Leonis...........	9	2 8.25	0.20	12.48	10 1	....	17 15 10.20	11.65	23.5	+17 14 48.5	47.9	....
38	λ Hydræ............	9	5 57.83.	−0.05	12.42	10 5	....	348 9 12.98	16.05	72.3	−11 51 57.4	56.3	....
39	24 Cephei S. P........	9	8 2.87	+1.18	12.39	22 7	....	108 6 32.48	35.90	154.4	+71 50 50.6	50.0	....
40	λ Ursæ Majoris.....	9	11 20.03	−0.41	12.32	10 11	....	43 24 36.98	38.98	4.6	43 24 43.8	43.2	....
41	μ Ursæ Majoris.....	9	16 38.30	−0.40	−12.30	10 16	....	41 59 56.25	60.15	3.2	+42 0 1.4	3.0	....
42	31 Leonis Minoris....	9	22 21.92	−0.35	−12.31	10 22	....	37 13 3.15	3.92	1.8	+37 13 3.0	1.8	....
43	36 Ursæ Majoris.....	9	24 30.54	0.62	12.36	10 24	....	56 29 11.82	14.00	18.7	56 29 32.4	32.3	....
44	9 H. Draconis......	9	26 56.39	1.60	12.19	10 26	....	76 12 54.02	56.32	45.1	+76 13 40.8	40.8	....
45	33 Sextantis.........	9	36 34.19	0.10	12.40	10 36	....	358 47 32.70	32.68	49.9	− 1 13 15.3	17.3	....
46	42 Leonis Minoris....	9	40 33.98	0.30	12.32	10 40	....	31 12 29.60	28.05	8.0	+31 12 23.3	19.7	....
47	l Leonis...........	9	44 15.50	−0.16	12.41	10 44	....	11 4 42.92	41.82	31.3	11 4 13.5	10.3	....
48	ι Cephei S. P........	9	46 17.97	+0.89	−12.47	22 46	....	114 15 49.15	51.10	223.0	+65 40 25.4	26.3	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
9 11 12	75.67	6.7	5.7
11 52	75.59	6.3	5.6
13 12	75.75	5.2	3.8
10 8 47	76.12	7.0	6.2
9 13	76.15	6.6	5.8
9 58	76.17	5.8	5.5

Bisections are made at II and VI, except as noted below.

1, 2, 5, 9, 11, 14, 15, 17, 22, 23, 24, 27, 28, 32, 34, 39, 41, 43, 44, 48.	Bisections at III and V.
20.	Bisections at d_1 and b_2.
35, 40.	Bisections at IV and V.

Notes.

20. Star diffuse and unsteady.

29. First bisection 10ˢ late.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–17, from nadir.....	+0.2	−1.8
18–20, from nadir......	+0.3	−1.7
21–48, from nadir......	+1.2	−1.4

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Groombridge 1706	9	52 18.92	−1.90	**−12.11**	10 52	....	78 17 28.42	29.88	48.6	+78 18 18.7	17.8	....
2	α Ursæ Majoris	8	57 50.91	0.77	**12.37**	10 57	....	62 16 54.55	57.05	25.6	62 17 22.3	22.2	....
3	χ Leonis	9	0 6.97	0.15	**12.42**	10 59	....	7 52 52.18	53.15	35.7	7 52 18.3	17.3	....
4	p^3 Leonis	9	2 3.51	0.12	**12.35**	11 1	....	2 30 18.80	19.88	43.8	2 29 36.9	36.0	....
5	ψ Ursæ Majoris	9	4 18.65	−0.44	**12.24**	11 4	....	45 2 10.72	13.90	6.4	+45 2 19.1	20.0	....
6	β Crateris	9	6 59.70	0.00	**−12.46**	11 6	....	337 44 35.15	37.55	107.5	−22 17 10.3	9.9	....
7	δ Leonis	7	9 3.00	−0.22	**−12.34**	11 8	....	21 4	21.68	19.1	+21 4	2.3	....
8	ν Ursæ Majoris	9	13 20.55	0.32	**12.37**	11 13	....	33 38 15.75	17.45	5.5	33 38 11.9	11.6	....
9	Groombridge 1771	9	17 12.61	0.86	**12.40**	11 16	....	64 52 4.52	5.22	28.9	64 52 35.3	33.7	....
10	τ Leonis	9	23 3.16	0.12	**12.44**	11 22	....	3 24 48.18	48.88	42.4	3 24 7.6	6.3	....
11	λ Draconis	9	25 46.70	1.10	**12.31**	11 25	....	69 52 16.75	17.42	35.7	+69 52 54.3	52.6	....
12	ζ Hydræ	9	28 20.41	−0.05	**−12.32**	11 28	....	328 44 5.22	4.48	163.8	−31 18 36.5	39.2	....
13	υ Leonis	9	32 5.16	−0.10	**−12.41**	11 31	....	359 44 11.40	11.28	48.5	− 0 16 35.2	37.3	....
14	3 Draconis	9	37 11.82	0.96	**12.34**	11 36	....	67 17 12.78	14.80	32.1	+67 17 46.7	46.5	....
15	χ Ursæ Majoris	9	41 2.54	0.48	**12.28**	11 40	....	48 19 40.72	42.28	9.9	48 19 52.6	51.8	....
16	β Leonis	9	44 13.18	0.19	**12.44**	11 44	....	15 7 59.25	60.75	26.3	15 7 34.8	34.3	....
17	γ Ursæ Majoris	9	48 50.93	−0.58	**−12.29**	11 48	....	54 14 35.32	36.75	16.3	+54 14 53.5	52.7	....

1900 APRIL 14. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0
18	ζ Hydræ	9	50 22.40	−0.12	**−13.50**	8 50	....	6 19 53.45	55.98	37.1	+ 6 19 19.3	20.3	....
19	10 Ursæ Majoris	9	54 25.51	0.24	**13.47**	8 54	....	42 10 34.40	37.75	3.3	42 10 40.8	42.2	....
20	κ Ursæ Majoris	9	57 4.70	0.27	**13.42**	8 56	....	47 32 55.12	56.78	8.8	47 33 7.0	6.7	....
21	σ^2 Ursæ Majoris	9	1 53.98	0.54	**13.38**	9 1	....	67 31 54.72	55.75	31.7	67 32 29.4	28.5	....
22	θ Hydræ	9	9 25.74	0.11	**13.56**	9 9	....	2 44 34.48	34.32	42.5	2 43 55.0	53.2	....
23	40 Lyncis	9	14 14.33	0.21	**13.50**	9 15	....	34 48 51.52	52.80	4.2	34 48 50.1	49.8	....
24	1 H. Draconis	9	23 14.44	−1.55	**−13.41**	9 22	....	81 45 15.48	16.18	54.0	+81 46 12.1	10.9	....
25	θ Ursæ Majoris	8	26 27.24	−0.32	**−13.39**	9 26	....	52 7 42.05	42.92	13.7	+52 7 58.8	57.8	....
26	10 Leonis Minoris	9	28 22.44	0.22	**13.48**	9 28	....	36 50 23.00	25.55	2.1	36 50 23.7	24.6	....
27	ο Leonis	9	36 5.05	0.13	**13.54**	9 35	....	10 21 4.30	6.72	31.8	10 20 35.4	36.2	....
28	ε Leonis	9	40 26.99	0.17	**13.57**	9 40	....	24 14 7.05	8.05	15.3	24 13 54.6	54.0	....
29	υ Ursæ Majoris	9	44 10.51	0.42	**13.48**	9 43	....	59 30 6.88	10.78	21.9	+59 30 31.8	33.8	....
30	6 Sextantis	9	46 27.82	−0.10	**−13.54**	9 46	....	356 14 3.55	4.35	53.8	− 3 46 47.2	48.0	....
31	Groombridge 1586	9	49 46.69	−0.80	**−13.71**	9 49		73 20 36.55	40.18	40.0	+73 21 19.4	21.2	....
32	19 Leonis Minoris	6	51 50.51	0.26	**13.54**	9 51	....	41 31 42.52	45.35	2.7	41 31 48.3	49.2	....
33	π Leonis	...	.. ..	....	.....	9 54	....	8 31 42.62	42.72	34.3	8 31 11.3	9.8	....
34	η Leonis	9	2 9.27	0.15	**13.60**	10 1	....	17 15 9.15	10.08	23.2	+17 14 48.9	48.2	....
35	λ Hydræ	9	5 58.97	−0.08	**13.58**	10 5	....	348 9 10.65	13.25	71.5	−11 51 57.8	56.8	....
36	24 Cephei S. P	9	8 4.77	+0.75	**−13.61**	22 7	....	108 6 33.92	36.12	152.7	+71 50 49.7	50.0	....
37	λ Ursæ Majoris	9	11 20.92	−0.27	**−13.42**	10 11	....	43 24 35.48	37.72	4.6	−43 24 43.2	43.5	....
38	μ Ursæ Majoris	9	16 39.24	0.27	**13.44**	10 16		41 59 54.68	59.58	3.1	+42 0 0.9	3.9	....
39	31 Leonis Minoris	9	22 22.91	0.24	**13.47**	10 22	....	37 13 1.72	3.12	1.7	37 13 2.8	2.6	....
40	36 Ursæ Majoris	9	24 31.29	0.41	**13.41**	10 24	....	56 29 11.68	13.45	18.5	56 29 33.2	33.1	....
41	9 H. Draconis	9	26 56.72	1.03	**13.34**	10 26	....	76 12 53.60	56.12	44.5	+76 13 40.9	41.5	....
42	33 Sextantis	9	36 35.32	−0.10	**−13.57**	10 36	....	358 47 31.02	31.22	49.3	− 1 13 15.3	16.7	....
43	42 Leonis Minoris	9	40 34.97	−0.22	**−13.43**	10 40	....	31 12 28.42	27.88	7.9	+31 12 23.3	21.2	....
44	l Leonis	9	44 16.55	−0.14	**13.51**	10 44	....	11 4 41.10	40.72	30.9	11 4 13.1	11.1	....
45	ι Cephei S. P	9	46 19.54	+0.60	**13.58**	22 46		114 15 51.05	52.50	220.2	65 40 25.2	26.2	....
46	Groombridge 1706	9	52 19.34	−1.28	**13.41**	10 52	....	78 17 28.88	29.32	48.0	78 18 19.6	18.2	....
47	α Ursæ Majoris	9	57 51.68	0.53	**13.50**	10 57	....	62 16 55.32	56.62	25.3	62 17 23.6	23.0	....
48	χ Leonis	9	0 8.04	−0.13	**−13.54**	10 59	....	7 52 50.90	51.75	35.2	+ 7 52 18.7	17.9	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
10 10 48	76.19	5.2	4.8
11 20	76.20	4.7	3.8
11 52	76.20	4.4	3.5
14 8 53	76.04	10.5	9.5
9 18	76.08	10.0	8.8
9 58	76.12	9.2	8.3
10 39	76.14	8.5	8.0

Bisections are made at II and VI, except as noted below.

1, 5, 9, 11, 14, 15, 17, 19, 20, 21, 24, 25, 29, 31, 32, 36, 37, 38, 40, 41, 45, 46, 47.	Bisections at III and V.
2.	Bisections at IV and V.

Notes.

1.	Last bisection 10ˢ late.
9, 25, 30, 41.	First bisection doubtful.
41.	Last bisection 8ˢ late.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–17, from nadir	+1.2	−1.4
18–48, from nadir	+2.3	+0.1

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	p^3 Leonis	9	2 4.59	−0.11	**−13.47**	11 1	....	2 30 16.85	18.08	43.2	+ 2 29 36.6	36.2	....
2	ψ Ursæ Majoris	9	4 19.59	0.31	**13.36**	11 4	....	45 2 11.00	13.35	6.3	+45 2 20.4	20.8	....
3	β Crateris	9	7 0.83	0.05	**13.57**	11 6	....	337 44 32.60	32.02	106.0	−22 17 10.3	12.5	....
4	δ Leonis	9	9 4.14	0.18	**13.55**	11 8	....	21 4 20.22	21.05	18.9	+21 4 4.2	3.4	....
5	ν Ursæ Majoris	9	13 21.54	0.24	**13.47**	11 13	....	33 38 16.12	16.68	5.4	33 38 13.5	12.5	....
6	Groombridge 1771	9	17 13.37	0.61	**13.50**	11 16	....	64 52 3.80	6.00	28.5	64 52 35.3	35.6	....
7	τ Leonis	9	23 4.26	−0.12	**−13.56**	11 22	....	3 24 47.08	47.48	41.8	+ 3 24 8.3	7.0	....
8	λ Draconis	9	25 47.47	−0.78	**−13.52**	11 25	....	69 52 17.32	17.18	35.2	+69 52 55.4	53.4	....
9	ξ Hydræ	9	28 21.61	0.02	**13.57**	11 28	....	328 44 0.95	0.25	161.3	−31 18 37.1	39.5	....
10	υ Leonis	9	32 6.29	0.10	**13.56**	11 31	....	359 44 9.38	9.22	47.8	− 0 16 35.4	37.2	....
11	3 Draconis	9	37 12.59	0.70	**13.46**	11 36	....	67 17 13.50	14.30	31.7	+67 17 48.2	47.1	....
12	χ Ursæ Majoris	9	41 3.53	0.36	**13.43**	11 40	....	48 19 40.10	42.55	9.7	48 19 52.9	53.4	....
13	β Leonis	9	44 14.23	0.16	**13.53**	11 44	....	15 7 58.38	60.15	25.8	15 7 35.7	35.7	....
14	γ Ursæ Majoris	9	48 51.82	−0.44	**−13.36**	11 48	....	54 14 36.42	36.32	16.1	+54 14 55.6	53.6	....
	LITTELL, OBSERVER.			1900 APRIL 19.				CLAMP EAST.				NO ASSISTANT.	
15	θ Virginis	9	5 3.31	+ 0.03	**−13.90**	13 4	....	82 49 53.05	51.78	54.2	− 5 0 34.1	35.5	....
16	α Ursæ Minoris S. P.	9	22 46.89	−37.72	**13.51**	1 21	....	346 36 60.38	56.42	72.7	+88 46 33.0	32.8	....
17	m Virginis	9	36 38.81	− 0.01	**−13.83**	13 36	....	86 1 23.05	21.98	60.5	− 8 12 10.4	12.0	....
	UPDEGRAFF, OBSERVER.			1900 APRIL 24.				CLAMP EAST.				LITTELL, ASSISTANT.	
18	ζ Hydræ	9	50 20.16	+0.18	**−11.70**	8 50	....	71 30 15.30	15.48	35.1	+ 6 19 21.3	18.9	....
19	10 Ursæ Majoris	9	54 22.52	0.86	**11.80**	8 54	....	35 39 32.25	32.15	3.1	42 10 42.6	40.3	....
20	κ Ursæ Majoris	9	57 1.43	1.02	**11.68**	8 56	....	30 17 13.25	10.35	8.4	47 33 6.9	7.4	....
21	σ^2 Ursæ Majoris	9	1 49.02	2.21	**11.65**	9 1	....	10 18 11.22	8.58	30.0	67 32 30.4	30.6	....
22	θ Hydræ	9	9 23.53	0.13	**11.74**	9 9	....	75 5 35.90	35.45	40.2	2 43 55.6	53.9	....
23	40 Lyncis	9	15 11.54	0.67	**11.78**	9 15	....	43 1 16.48	16.88	4.0	34 48 51.0	48.5	....
24	1 H. Draconis	9	23 3.90	+6.23	**−11.99**	9 22	....	356 4 48.45	47.62	51.0	+81 46 13.9	12.3	....
25	θ Ursæ Majoris	9	26 23.92	+1.19	**−11.84**	9 26	....	25 42 25.55	24.28	12.9	+52 7 59.1	57.9	....
26	10 Leonis Minoris	9	28 19.67	0.72	**11.79**	9 28	....	40 59 44.92	42.78	2.0	36 50 24.6	24.5	....
27	ο Leonis	9	36 2.75	0.24	**11.75**	9 35	....	67 29 3.80	3.72	30.0	10 20 37.8	35.8	....
28	ε Leonis	9	40 24.41	0.46	**11.77**	9 40	....	53 36 2.02	0.28	14.5	24 13 55.0	54.6	....
29	υ Ursæ Majoris	9	44 6.54	1.55	**11.80**	9 43	....	18 19 57.60	56.62	20.7	+59 30 34.8	33.4	....
30	6 Sextantis	9	46 25.81	0.03	**11.79**	9 46	....	81 36 7.95	5.72	50.9	− 3 46 47.1	47.0	....
31	Groombridge 1586	9	49 40.42	+3.01	**−11.86**	9 49	....	4 29 25.40	24.58	37.9	+73 21 24.1	22.5	....
32	19 Leonis Minoris	9	51 47.48	+0.83	**−11.79**	9 51	....	36 18 23.50	22.15	2.5	+41 31 50.8	49.7	....
33	π Leonis	9	55 9.79	0.21	**11.77**	9 54	....	69 18 25.52	24.08	32.5	8 31 13.6	12.9	....
34	η Leonis	9	2 6.90	+0.34	**11.85**	10 1	....	60 34 62.42	59.20	22.0	+17 14 47.2	48.3	....
35	λ Hydræ	9	5 57.02	−0.08	**11.75**	10 5	....	89 40 60.75	59.90	67.8	−11 51 56.8	58.1	....
36	24 Cephei S. P.	8	8 7.10	−2.73	**11.80**	22 7	....	329 43 27.00	22.78	144.7	+71 50 49.9	48.7	....
37	λ Ursæ Majoris	9	11 18.00	+0.88	**11.84**	10 11	....	34 25 32.35	29.65	4.4	43 24 43.8	44.1	....
38	μ Ursæ Majoris	9	16 36.35	+0.84	**−11.84**	10 16	....	35 50 10.30	9.45	3.0	+42 0 4.5	2.9	....
39	31 Leonis Minoris	9	22 20.08	+0.72	**−11.76**	10 22	....	40 37 5.88	3.88	1.7	+37 13 3.9	3.7	....
40	36 Ursæ Majoris	8	24 27.50	1.37	**11.66**	10 24	....	21 20 54.95	53.95	17.6	56 29 34.4	33.0	....
41	9 H. Draconis	8	26 49.44	3.64	**11.40**	10 26	....	1 37 10.38	8.15	42.3	+76 13 43.5	43.3	....
42	33 Sextantis	9	36 33.25	0.07	**11.78**	10 36	....	79 2 41.12	37.90	46.9	− 1 13 16.3	15.2	....
43	42 Leonis Minoris	9	40 32.35	0.59	**11.75**	10 40	....	46 37 42.25	39.75	7.5	+31 12 21.8	22.1	....
44	l Leonis	9	44 14.27	+0.24	**11.71**	10 44	....	66 45 29.60	27.32	29.4	11 4 12.6	12.8	....
45	ι Cephei S. P.	9	46 20.82	−1.98	**−11.81**	22 46	....	323 34 6.72	2.30	209.6	+65 40 24.8	23.4	....

Time.		Barom.	Att. Ther.	Ext. Ther.
d	h m	cm.	°	°
14	11 20	76.15	8.0	7.6
	11 51	76.16	7.6	7.2
19	13 8	75.92	16.6	17.5
	13 57	75.92	17.0	18.2
24	9 0	75.40	22.4	22.2
	9 32	75.40	21.8	21.6
	9 57	75.41	21.3	20.4
	10 40	75.45	20.0	19.0

Bisections are made at II and VI, except as noted below.

2, 6, 8, 11, 12, 14, 19, 20, 21, 24 25, 29, 31, 32, 37, 38, 40, 41, 45.	Bisections at III and V.
15, 17.	Bisection at IV.
16.	Bisections at d_1, c_5, c_1, and b_3.
36.	Bisections at IV and V.

Notes.

13. First bisection 10ˢ late.
23, 37. First bisection doubtful.
39. Unsteady; blurred.
41. Observation poor.

Adopted Equator Point Corrections.

		A.	B.
		″	″
1–14, from nadir		+2.3	+ 0.1
15–17, from nadir	−77° 50′	14.1	11.5
18–45, from nadir		13.0	10.3

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T - m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Groombridge 1706.	9	52 11.42	+4.28	**−11.80**	10 52	....	359 32 35.08	33.18	45.7	+78 18 22.1	21.6	....
2	α Ursæ Majoris	9	57 47.49	1.70	**11.79**	10 57	....	15 33 10.80	8.35	24.1	62 17 25.0	25.0	....
3	χ Leonis	9	0 5.81	0.20	**11.73**	10 59	....	69 57 19.25	15.80	33.6	7 52 19.0	20.0	....
4	p^3 Leonis	9	2 2.51	0.12	**11.71**	11 1	....	75 19 53.38	52.72	41.1	2 29 37.4	35.7	....
5	ψ Ursæ Majoris	9	4 16.46	+0.92	**11.61**	11 4	....	32 47 56.58	54.25	6.0	+45 2 21.2	21.1	....
6	β Crateris	9	6 59.08	−0.23	**−11.73**	11 6	....	100 5 43.25	39.80	101.0	−22 17 12.4	11.1	....
7	δ Leonis	9	9 1.57	+0.40	**−11.66**	11 8	....	56 45 48.82	48.15	18.0	+21 4 4.8	3.3	....
8	ν Ursæ Majoris	9	13 18.79	0.53	**11.62**	11 13	....	44 11 52.58	52.68	5.2	33 38 13.7	11.5	....
9	τ Leonis	9	23 2.12	0.13	**11.74**	11 22	....	74 25 24.52	21.48	39.8	3 24 7.4	8.3	....
10	λ Draconis	.	.. ..	....	.....	11 25	....	7 57 49.55	46.12	33.5	+69 52 55.9	56.6	....
11	υ Leonis	9	32 4.26	0.08	**11.77**	11 31	....	78 6 2.98	0.78	45.4	− 0 16 36.7	36.6	....
12	3 Draconis	9	37 7.84	+2.12	**−11.82**	11 36	....	10 32 51.98	48.22	30.1	+67 17 49.8	51.1	....
13	χ Ursæ Majoris	9	41 0.32	+1.02	**−11.73**	11 40	....	29 30 27.10	23.88	9.2	+48 19 53.9	54.6	....
14	β Leonis	9	44 11.92	0.30	**11.75**	11 44	....	62 42 12.32	9.82	24.6	15 7 34.7	35.1	....
15	γ Ursæ Majoris	9	48 48.34	1.25	**11.72**	11 48	....	23 35 30.42	27.82	15.3	54 14 56.6	56.8	....
16	β Andromedæ	8	4 19.54	0.50	**11.48**	1 4	....	42 44	.....	....	35 5	....	....
17	α Ursæ Minoris	9	21 38.43	+30.42	**−10.95**	1 22	....	349 4 45.90	41.95	67.6	+88 46 32.4	33.1	....

1900 APRIL 25. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T - m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
18	ζ Hydræ	9	50 19.19	+0.04	**−10.61**	8 50	....	71 30 14.90	14.20	36.1	+ 6 19 21.1	19.5	....
19	10 Ursæ Majoris	9	54 22.54	−0.30	**10.68**	8 54	....	35 39 32.85	32.10	3.2	42 10 42.6	40.8	....
20	κ Ursæ Majoris	9	57 1.77	0.38	**10.65**	8 56	....	30 17 14.22	10.42	8.6	47 33 6.6	7.8	....
21	σ^2 Ursæ Majoris	9	1 51.03	−0.90	**10.59**	9 1	....	10 18 11.75	9.45	30.8	67 32 31.2	30.9	....
22	θ Hydræ	9	9 22.53	+0.06	**10.68**	9 9	....	75 5 35.92	34.08	41.4	2 43 54.8	54.4	....
23	40 Lyncis	9	15 11.39	−0.22	**10.76**	9 15	....	43 1 17.60	17.18	4.1	34 48 50.2	48.4	....
24	1 H. Draconis	9	23 11.36	−2.71	**−10.65**	9 22	....	356 4 49.40	49.45	52.5	+81 46 14.9	12.2	....
25	θ Ursæ Majoris	9	26 24.41	−0.48	**−10.70**	9 26	....	25 42 26.22	24.92	13.3	+52 7 59.2	58.0	....
26	10 Leonis Minoris	9	28 19.57	0.25	**10.73**	9 28	....	40 59 44.32	43.90	2.1	36 50 25.5	23.6	....
27	ο Leonis	9	36 1.97	0.00	**10.74**	9 35	....	67 29 2.78	2.40	30.8	10 20 38.5	36.6	....
28	ε Leonis	9	40 23.98	0.13	**10.77**	9 40	....	53 35 62.00	59.38	14.9	24 13 55.1	55.5	....
29	υ Ursæ Majoris	9	44 7.62	−0.67	**10.70**	9 43	....	18 19 58.32	57.58	21.3	+59 30 35.1	33.3	....
30	6 Sextantis	9	46 24.63	+0.12	**10.72**	9 46	....	81 36 6.52	5.00	52.3	− 3 46 46.7	47.4	....
31	Groombridge 1586.	9	49 43.76	−1.36	**−10.89**	9 49	....	4 29 26.85	26.88	38.9	+73 21 24.1	21.5	....
32	19 Leonis Minoris	9	51 47.56	−0.32	**−10.74**	9 51	....	36 18 23.10	22.58	2.6	+41 31 51.7	49.7	....
33	π Leonis	9	55 8.89	+0.01	**10.68**	9 54	....	69 18 25.35	24.10	33.3	8 31 13.4	12.4	....
34	η Leonis	9	2 6.20	−0.06	**10.77**	10 1	....	60 34 62.05	58.68	22.5	+17 14 47.5	48.6	....
35	λ Hydræ	9	5 55.74	+0.20	**10.76**	10 5	....	89 40 59.15	57.25	69.4	−11 51 56.4	56.7	....
36	24 Cephei S. P	9	8 2.20	+1.26	**10.82**	22 7	....	329 43 29.25	25.60	148.3	+71 50 48.2	47.6	....
37	λ Ursæ Majoris	9	11 18.04	−0.36	**10.66**	10 11	....	34 25 31.60	29.58	4.5	43 24 45.1	44.6	....
38	μ Ursæ Majoris	9	16 36.49	−0.34	**−10.81**	10 16	....	35 50 10.62	11.12	3.1	+42 0 4.7	1.7	....
39	31 Leonis Minoris	9	22 19.99	−0.28	**−10.68**	10 22	....	40 37 5.72	4.12	1.7	+37 13 4.5	3.8	....
40	36 Ursæ Majoris	.	.. ..	....	.....	10 24	....	21 20 56.20	54.52	18.0	56 29 34.2	33.1	....
41	9 H. Draconis	7	26 54.06	−1.74	**10.71**	10 26	....	1 37 12.22	9.80	43.3	+76 13 43.0	42.9	....
42	33 Sextantis	9	36 32.15	+0.10	**10.72**	10 36	....	79 2 40.65	36.32	48.0	− 1 13 16.5	14.4	....
43	42 Leonis Minoris	9	40 32.07	−0.21	**10.68**	10 40	....	46 37 40.98	39.28	7.7	+31 12 23.4	22.7	....
44	l Leonis	9	44 13.47	−0.01	**10.67**	10 44	....	66 45 28.25	26.45	30.1	11 4 13.7	13.3	....
45	ι Cephei S. P	9	46 16.87	+0.94	**−10.72**	22 46	....	323 34 10.40	7.52	214.5	+65 40 23.2	23.4	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
24 11 12	75.48	19.3	18.4
11 43	75.50	19.1	18.9
1 33	75.98	15.2	14.2
25 8 49	75.76	17.3	16.2
9 11	75.80	16.7	15.7
9 58	75.80	15.8	15.2
10 39	75.81	14.8	14.0

Bisections are made at II and VI, except as noted below.

1, 2, 5, 12, 13, 15, 19, 20, 21, 24, 25, 29, 31, 32, 36, 37, 38, 41, 45.	Bisections at III and V.
4.	Bisections at III and VI.
10.	Bisection at V.
17.	Bisections at b_3 and d_2.
40.	Bisections at IV and V.

Notes.

8. Through clouds.
9. Last bisection doubtful.
17. Seeing bad; observation poor.
42. First bisection 6ˢ late; doubtful.

Adopted Equator Point Corrections.

		A.	B.
	° ′	″	″
1–15, from nadir	−77 50	13.0	10.3
16–17, from nadir		13.3	9.6
18–45, from nadir		13.4	10.6

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + *n* TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Groombridge 1706.	9	52 16.63	−2.09	**−10.72**	10 52	....	359 32 36.85	33.75	46.8	+78 18 21.8	22.4	....
2	α Ursæ Majoris	9	57 49.00	−0.81	**10.83**	10 57	....	15 33 11.88	10.48	24.7	62 17 24.9	23.8	....
3	χ Leonis	9	0 4.92	+0.02	**10.67**	10 59	....	69 57 18.32	14.98	34.4	7 52 19.4	20.5	....
4	p¹ Leonis	9	2 1.48	+0.06	**10.63**	11 1	....	75 19 53.40	51.92	42.1	2 29 36.6	35.9	....
5	ψ Ursæ Majoris	8	4 16.84	−0.40	**10.69**	11 4	....	32 47 57.82	55.32	6.1	+45 2 20.5	20.4	....
6	β Crateris	9	6 57.59	+0.31	**−10.79**	11 6	....	100 5 40.70	36.42	103.5	−22 17 11.9	9.9	....
7	δ Leonis	9	9 1.11	0.11	**10.70**	11 8	....	56 45 49.35	45.65	18.4	+21 4 4.2	5.7	....
8	ν Ursæ Majoris	9	13 18.64	0.25	**10.70**	11 13	....	44 11 52.60	51.42	5.3	33 38 14.0	12.9	....
9	Groombridge 1771.	9	17 10.64	−0.92	**10.79**	11 16	....	12 58 3.12	0.25	27.8	64 52 36.8	37.1	....
10	τ Leonis	9	23 1.12	+0.06	**10.68**	11 22	....	74 25 23.58	20.82	40.8	3 24 7.7	8.2	....
11	λ Draconis	9	25 44.79	−1.19	**10.82**	11 25	....	7 57 48.98	46.25	34.3	+69 52 57.4	57.6	....
12	ξ Hydræ	9	28 18.22	+0.42	**−10.71**	11 28	....	109 6 14.68	12.30	157.5	−31 18 39.9	39.7	....
13	ν Leonis	9	32 3.17	+0.09	**−10.69**	11 31	....	78 5 61.80	59.15	46.7	− 0 16 36.4	36.0	....
14	3 Draconis	9	37 9.90	−1.05	**10.74**	11 36	....	10 32 53.02	48.78	30.9	+67 17 50.0	51.7	....
15	χ Ursæ Majoris	9	41 0.81	0.47	**10.74**	11 40	....	29 30 28.15	24.58	9.5	48 19 53.5	54.6	....
16	β Leonis	9	44 11.16	0.05	**10.64**	11 44	....	62 42 10.80	9.30	25.3	15 7 35.9	35.2	....
17	γ Ursæ Majoris	9	48 49.12	−0.60	**−10.67**	11 48	....	23 35 30.98	29.52	15.7	+54 14 56.9	55.8	....

1900 APRIL 26. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

18	ζ Hydræ	9	50 19.27	+0.04	**−10.71**	8 50	....	71 30 13.20	16.22	35.4	+ 6 19 20.9	18.8	....
19	10 Ursæ Majoris	9	54 22.52	−0.23	**10.75**	8 54	....	35 40 30.85	33.22	3.2	42 10 41.9	40.2	....
20	κ Ursæ Majoris	9	57 1.74	0.29	**10.73**	8 56	....	30 17 11.52	11.30	8.4	47 33 6.4	7.4	....
21	σ² Ursæ Majoris	9	1 50.94	−0.72	**10.73**	9 1	....	10 18 9.58	9.62	30.2	67 32 30.1	30.7	....
22	θ Hydræ	9	9 22.61	+0.07	**10.78**	9 9	....	75 5 33.32	35.70	40.6	2 43 55.6	54.2	....
23	40 Lyncis	9	15 11.40	−0.17	**10.84**	9 15	....	43 1 14.95	17.92	4.0	34 48 50.4	48.3	....
24	1 H. Draconis	7	23 10.81	−2.16	**−10.79**	9 22	....	356 4 46.52	48.68	51.6	+81 46 14.9	12.7	....
25	θ Ursæ Majoris	9	26 24.29	−0.38	**−10.70**	9 26	....	25 42 22.90	24.60	13.1	+52 7 59.8	58.7	....
26	10 Leonis Minoris	9	28 19.59	−0.19	**10.83**	9 28	....	40 59 42.45	44.20	2.0	36 50 24.8	24.0	....
27	ο Leonis	8	36 1.98	+0.01	**10.78**	9 35	....	67 29 0.85	3.18	30.3	10 20 38.3	36.9	....
28	ε Leonis	9	40 23.98	−0.09	**10.82**	9 40	....	53 35 59.45	61.28	14.6	24 13 55.3	54.5	....
29	υ Ursæ Majoris	9	44 7.49	−0.53	**10.74**	9 43	....	18 19 55.62	58.35	21.0	+59 30 34.9	32.9	....
30	6 Sextantis	9	46 24.71	+0.11	**−10.80**	9 46	....	81 36 5.30	6.15	51.4	− 3 46 47.2	47.0	....
31	Groombridge 1586.	9	49 43.41	−1.09	**−10.88**	9 49	....	4 29 23.98	26.70	38.2	+73 21 23.6	21.6	....
32	19 Leonis Minoris	9	51 47.54	−0.25	**10.81**	9 51	....	36 18 21.08	24.32	2.5	41 31 51.0	48.5	....
33	π Leonis	9	55 8.97	+0.02	**10.79**	9 54	....	69 18 25.02	24.92	32.7	8 31 11.8	12.8	....
34	η Leonis	9	2 6.23	−0.04	**10.83**	10 1	....	60 34 59.35	59.70	22.2	+17 14 47.9	48.5	....
35	λ Hydræ	9	5 55.77	+0.18	**10.79**	10 5	....	89 40 58.72	59.52	68.3	−11 51 57.4	57.3	....
36	24 Cephei S. P.	9	8 2.47	+1.02	**−10.78**	22 7	....	329 43 25.70	24.60	145.9	+71 50 49.6	48.4	....
37	λ Ursæ Majoris	9	11 18.03	−0.28	**−10.75**	10 11	....	34 25 29.60	30.88	4.4	+43 24 44.4	43.8	....
38	μ Ursæ Majoris	9	16 36.32	0.27	**10.74**	10 16	....	35 50 7.85	12.90	3.0	42 0 4.7	0.4	....
39	31 Leonis Minoris	9	22 20.02	0.22	**10.79**	10 22	....	40 37 3.05	4.72	1.7	37 13 4.5	3.8	....
40	36 Ursæ Majoris	9	24 28.43	0.50	**10.78**	10 24	....	21 20 52.05	54.05	17.7	56 29 35.2	33.9	....
41	9 H. Draconis	9	27 53.53	−1.41	**10.59**	10 26	....	1 37 7.88	9.20	42.6	+76 13 44.1	43.5	....
42	33 Sextantis	9	36 32.23	+0.18	**−10.85**	10 36	....	79 2 37.62	38.88	47.1	− 1 13 15.2	15.5	....
43	42 Leonis Minoris	9	40 32.07	−0.16	**−10.75**	10 40	....	46 37 38.98	41.02	7.6	+31 12 22.8	21.7	....
44	l Leonis	9	44 13.47	0.00	**10.70**	10 44	....	66 45 26.40	27.65	29.6	11 4 13.5	13.2	....
45	ι Cephei S. P.	9	46 17.13	+0.76	**10.75**	22 46	....	323 34 4.88	4.30	210.5	65 40 24.3	23.6	....
46	Groombridge 1706.	9	52 16.59	1.71	**11.13**	10 52	....	359 32 32.95	33.20	45.9	78 18 22.2	22.7	....
47	α Ursæ Majoris	9	57 48.86	−0.66	**10.88**	10 57	....	15 33 7.60	9.32	24.2	62 17 26.1	25.1	....
48	χ Leonis	9	0 5.02	+0.03	**−10.79**	10 59	....	69 57 15.82	16.35	33.7	+ 7 52 20.0	20.4	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
25 11 12	75.80	14.1	13.0
11 43	75.78	13.5	12.2
26 9 6	75.30	19.7	19.4
9 31	75.30	19.0	18.4
9 57	75.30	18.2	17.6
10 49	75.30	17.0	17.1

Bisections are made at II and VI, except as noted below.

1, 2, 5, 9, 11, 14, 15, 17, 19, 20, 21, 25, 29, 31, 32, 36, 37, 38, 40, 41, 45, 46, 47. } Bisections at III and V.

24. Bisections at IV and V.

Notes.

17, 25. First bisection doubtful.

41. Last bisection 8ˢ late.

Adopted Equator Point Corrections.

	A.	B.
	° ′ ″	″
1–17, from nadir......	−77 50 13.4	10.6
18–48, from nadir......	10.8	11.2

NO.	NAME.	THDS.	MEAN THREAD.	$c_0'\sec\delta$: $n\tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	p^3 Leonis	9	2 1.58	+0.07	**−10.75**	11 1	....	75 19 51.62	53.35	41.3	+ 2 29 36.6	35.8	....
2	ψ Ursæ Majoris	9	4 16.81	−0.32	**10.76**	11 4	....	32 47 54.08	54.25	6.0	+45 2 21.5	22.0	....
3	β Crateris	9	6 57.61	+0.28	**10.79**	11 6	....	100 5 39.95	39.92	101.5	−22 17 11.8	10.8	....
4	δ Leonis	9	9 1.15	−0.08	**10.78**	11 8	....	56 45 47.08	47.85	18.1	+21 4 4.2	4.4	....
5	ν Ursæ Majoris	9	13 18.62	0.20	**10.74**	11 13	....	44 11 50.32	52.45	5.2	33 38 13.8	12.6	....
6	Groombridge 1771	9	17 10.58	−0.76	**10.91**	11 16	....	12 57 59.75	59.88	27.3	64 52 37.0	37.6	....
7	τ Leonis	9	23 1.20	+0.06	**10.78**	11 22	....	74 25 21.85	22.62	40.0	+ 3 24 7.6	7.8	....
8	λ Draconis	9	25 44.56	−0.99	**−10.83**	11 25	....	7 57 45.80	45.78	33.6	+69 52 57.2	57.9	....
9	ξ Hydræ	9	28 18.41	+0.38	**10.87**	11 28	....	109 6 14.88	17.02	154.3	−31 18 39.5	40.7	....
10	υ Leonis	9	31 3.25	+0.09	**10.79**	11 31	....	78 5 59.92	60.20	45.7	− 0 16 36.1	35.4	....
11	3 Draconis	9	37 9.72	−0.87	**10.78**	11 36	....	10 32 49.35	48.32	30.3	+67 17 50.4	52.1	....
12	χ Ursæ Majoris	9	41 0.75	0.39	**10.79**	11 40	....	29 30 24.78	25.90	9.3	48 19 54.1	53.7	....
13	β Leonis	9	44 11.26	0.03	**10.77**	11 44	....	62 42 8.85	9.40	24.7	15 7 35.9	36.3	....
14	γ Ursæ Majoris	9	48 49.07	−0.49	**−10.75**	11 48	....	23 35 28.02	28.52	15.4	+54 14 56.9	57.1	....

1900 APRIL 27. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0'\sec\delta$: $n\tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
15	ζ Hydræ	9	50 19.53	+0.06	**−11.00**	8 50	....	71 30 11.98	16.92	35.3	+ 6 19 20.0	18.8	....
16	10 Ursæ Majoris	9	54 22.75	−0.15	**11.08**	8 54	....	35 39 28.08	33.35	3.1	42 10 42.4	40.6	....
17	κ Ursæ Majoris	9	57 1.94	0.19	**11.05**	8 56	....	30 17 9.62	12.08	8.4	47 33 6.2	7.2	....
18	σ^2 Ursæ Majoris	6	1 50.82	−0.47	**10.91**	9 1	....	10 18 6.30	9.55	30.1	67 32 31.4	31.3	....
19	θ Hydræ	9	9 22.86	+0.07	**11.05**	9 9	....	75 5 32.38	36.02	40.4	2 43 54.5	54.6	....
20	40 Lyncis	9	15 11.57	−0.10	**11.10**	9 15	....	43 1 12.68	18.30	4.0	34 48 50.4	48.6	....
21	1 H. Draconis	9	23 9.78	−1.41	**10.64**	9 22	....	356 4 44.25	49.02	51.3	+81 46 14.0	12.7	....
22	θ Ursæ Majoris	9	26 24.43	0.23	**−11.02**	9 26	....	25 42 20.82	25.48	13.0	+52 7 59.5	58.4	....
23	10 Leonis Minoris	9	28 19.77	−0.11	**11.11**	9 28	....	40 59 39.95	44.85	2.0	36 50 25.1	24.0	....
24	ο Leonis	9	36 2.29	+0.03	**11.13**	9 35	....	67 28 58.50	64.45	30.2	10 20 38.6	36.4	....
25	ε Leonis	9	40 24.22	−0.04	**11.12**	9 40	....	53 35 57.72	61.98	14.5	24 13 55.0	54.5	....
26	υ Ursæ Majoris	9	44 7.66	−0.33	**11.14**	9 43	....	18 19 53.40	59.30	20.8	+ 59 30 34.7	32.3	....
27	6 Sextantis	9	46 25.08	+0.11	**11.18**	9 46	....	81 36 3.25	7.90	51.1	− 3 46 47.0	47.9	....
28	Groombridge 1586	9	49 43.35	−0.68	**−11.29**	9 49	....	4 29 21.35	26.65	38.0	+73 21 23.8	22.0	....
29	19 Leonis Minoris	9	51 47.78	−0.14	**−11.18**	9 51	....	36 18 19.38	25.02	2.5	+41 31 50.5	48.3	....
30	π Leonis	9	55 9.30	+0.04	**11.15**	9 54	....	69 18 22.05	26.48	32.6	8 31 12.6	12.0	....
31	η Leonis	9	2 6.53	0.00	**11.19**	10 1	....	60 34 57.58	60.62	22.1	+17 14 47.5	48.3	....
32	λ Hydræ	9	5 56.21	+0.15	**11.21**	10 5	....	89 40 56.00	62.68	68.0	−11 51 56.6	59.5	....
33	λ Ursæ Majoris	9	11 18.29	−0.16	**11.15**	10 11	....	34 25 27.78	31.30	4.4	+43 24 44.0	44.0	....
34	μ Ursæ Majoris	9	16 36.65	0.15	**11.21**	10 16	....	35 50 6.80	12.68	3.0	42 0 3.6	1.2	....
35	31 Leonis Minoris	9	22 20.21	0.12	**−11.10**	10 22	....	40 37 0.78	4.45	1.7	+37 13 4.6	4.7	....
36	36 Ursæ Majoris	9	24 28.60	0.29	**−11.19**	10 24	....	21 20 49.78	55.05	17.6	+56 29 35.2	33.4	....
37	9 H. Draconis	8	26 53.29	−0.86	**10.98**	10 26	....	1 37 5.40	9.12	42.4	76 13 44.1	43.9	....
38	l Leonis	9	44 13.88	+0.03	**11.15**	10 44	....	66 45 25.10	28.78	29.5	11 4 12.7	12.7	....
39	Groombridge 1706	9	52 16.30	−1.08	**11.57**	10 52	....	359 32 30.10	35.32	45.8	78 18 22.8	21.0	....
40	α Ursæ Majoris	9	57 48.88	−0.41	**11.18**	10 57	....	15 33 6.15	9.28	24.1	62 17 25.3	25.6	....
41	χ Leonis	9	0 5.39	+0.04	**11.18**	10 59	....	69 57 14.15	16.78	33.6	7 52 19.5	20.7	....
42	p^3 Leonis	9	2 1.99	+0.07	**−11.17**	11 1	....	75 19 48.62	53.72	41.2	+ 2 29 37.5	36.2	....
43	ψ Ursæ Majoris	9	4 17.04	−0.19	**−11.14**	11 4	....	32 47 51.75	55.58	6.0	+45 2 21.6	21.3	....
44	δ Leonis	9	9 1.47	0.03	**11.16**	11 8	....	56 45 44.30	47.88	18.0	21 4 4.9	5.1	....
45	ν Ursæ Majoris	9	13 18.94	0.11	**11.16**	11 13	....	44 11 47.90	53.08	5.2	33 38 14.0	12.6	....
46	Groombridge 1771	9	17 10.62	−0.48	**11.26**	11 16	....	12 56 56.30	60.08	27.2	64 52 38.2	37.9	....
47	τ Leonis	9	23 1.58	+0.07	**11.17**	11 22	....	74 25 18.28	23.15	39.9	3 24 9.1	8.0	....
48	λ Draconis	9	25 44.52	−0.64	**11.18**	11 25	....	7 57 43.10	46.32	33.6	+69 52 57.7	58.0	....
49	υ Leonis	9	32 3.71	+0.09	**−11.26**	11 31	....	78 5 57.70	61.60	45.6	− 0 16 36.0	36.1	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
26 11 11	75.32	16.7	16.7
11 48	75.33	16.1	16.4
27 9 0	75.30	21.1	20.6
9 34	75.33	20.3	19.9
9 58	75.35	19.7	19.5
10 38	75.43	19.0	18.7
11 11	75.48	18.5	18.2

Bisections are made at II and VI, except as noted below.

2, 6, 8, 11, 12, 14, 16, 17, 21, 22, 26, 28, 29, 33, 34, 36, 37, 39, 40, 43, 46, 48. } Bisections at III and V.

18. Bisections at IV and V.

Notes.

24, 37. First bisection doubtful.

28. Faint.

Adopted Equator Point Corrections.

	° ′	A. ″	B. ″
1–14, from nadir	−77 50	10.8	11.2
15–49, from nadir		8.6	11.8

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	3 Draconis	9	37 9.77	− 0.57	**−11.16**	11 36	....	10 32 46.12	48.98	30.3	+67 17 51.5	52.1	....
2	χ Ursæ Majoris	9	41 0.91	0.24	**11.11**	11 40	....	29 30 21.75	25.12	9.3	48 19 54.9	55.0	....
3	β Leonis	9	44 11.59	0.01	**11.13**	11 44	....	62 42 6.30	10.12	24.7	15 7 36.2	36.2	....
4	γ Ursæ Majoris	9	48 49.25	− 0.32	**−11.11**	11 48	....	23 35 25.45	29.82	15.4	+54 14 57.3	56.4	....

1900 JUNE 5. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
5	43 H. Cephei S. P.	9	55 18.41	+ 5.01	**[−21.99]**	0 55 1.91	+0.04	94 15 14.30	12.58	80.5	+85 43 11.0	10.9	+ 4.4
6	α Ursæ Minoris S. P.	7	22 31.86	16.70	**[22.99]**	1 22	....	91 12 10.82	8.82	72.2	+88 46 21.9	23.9	....
7	*m* Virginis	9	36 46.25	0.10	**[21.40]**	13 36	....	351 48 36.22	33.22	60.2	− 8 12 9.5	11.8	....
8	83 Virginis	9	39 30.62	0.16	**21.44**	13 39 9.30	−3.34	344 20 12.62	9.80	78.5	15 40 51.9	52.6	18.5
9	89 Virginis	9	44 50.89	0.18	**21.49**	13 44 29.59	3.39	342 22 41.95	39.88	84.5	−17 38 28.5	28.5	18.6
10	50 Cassiopeiæ S. P.	9	55 15.08	+ 1.14	**[−21.63]**	1 54 54.75	−1.39	108 1 7.45	5.82	145.5	+71 56 12.6	12.6	+ 3.5
11	94 Virginis	9	1 24.71	+ 0.10	**−21.49**	14 1 3.35	−3.34	351 35 40.38	36.38	60.7	− 8 25 6.3	8.2	+15.4
12	Rad. 1890, 3678	9	8 45.48	0.13	21.46	14 8 24.15	3.42	348 38 26.20	25.45	67.4	11 22 27.2	25.8	15.7
13	W. B., XIV. 184	9	13 51.09	0.13	21.45	14 13 29.77	3.45	348 24 33.72	31.45	68.0	11 36 20.3	20.4	15.5
14	Anonymous	9	18 42.85	0.13	21.45	14 18 21.53	3.49	347 29 7.72	6.38	70.3	12 31 48.6	47.8	15.4
15	Mayer 589	9	22 44.79	+ 0.14	−21.45	14 22 23.48	−3.52	347 6 6.78	5.55	71.3	−12 54 50.5	49.6	+15.2
16	Mayer 592	9	32 5.33	+ 0.13	**−21.40**	14 31 44.02	−3.52	348 7 50.58	51.18	68.7	−11 53 4.1	1.4	+14.2
17	8 Libræ	9	45 34.23	+ 0.16	**21.47**	14 45 12.96	−3.67	344 25 56.80	54.92	78.6	−15 35 7.8	7.5	+14.2
18	β Andromedæ	9	4 31.44	− 0.34	**[21.44]**	1 4	....	35 5 16.20	16.48	3.7	+35 5 26.1	26.3	....
19	α Ursæ Minoris	9	23 12.43	23.82	**[22.62]**	1 22	....	88 45 2.98	1.55	65.7	88 46 21.9	20.3	....
20	β Arietis	9	49 30.06	− 0.16	**[−21.47]**	1 49	....	20 19 20.05	18.68	18.6	+20 19 15.0	13.6	....

1900 JUNE 6. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
21	83 Virginis	9	39 30.87	+ 0.13	**−21.66**	13 39 9.29	−3.34	344 20 12.28	10.50	78.0	−15 40 52.0	52.6	+18.4
22	89 Virginis	9	44 51.14	0.14	**21.70**	13 44 29.58	3.39	342 22 42.98	41.22	84.0	−17 38 27.3	27.9	18.6
23	50 Cassiopeiæ S. P.	9	55 15.63	0.78	**[21.75]**	1 54 54.72	1.46	108 1 8.28	8.42	144.7	+71 56 12.9	12.1	3.6
24	94 Virginis	9	1 24.97	0.08	**21.73**	14 1 3.37	3.34	351 35 39.70	38.32	60.4	− 8 25 7.0	7.3	15.3
25	Rad. 1890, 3678	9	8 45.71	0.10	21.67	14 8 24.14	3.42	348 38 26.18	26.48	67.0	11 22 27.1	25.7	15.7
26	W. B., XIV. 184	9	13 51.27	+ 0.10	−21.66	14 13 29.71	−3.45	348 24 32.88	31.20	67.6	−11 36 21.0	21.6	+15.4
27	W. B., XIV. 283	9	18 49.36	+ 0.11	−21.66	14 18 27.81	−3.49	347 31 29.38	27.55	69.8	−12 29 26.7	27.4	+15.3
28	Mayer 589	9	22 45.02	0.11	21.65	14 22 23.48	3.51	347 6 6.48	5.90	70.8	12 54 50.6	50.1	15.2
29	Mayer 592	9	32 5.53	0.10	**21.57**	14 31 43.99	3.52	348 7 50.58	50.58	68.3	11 53 4.0	2.9	14.2
30	8 Libræ	9	45 34.38	0.13	**21.59**	14 45 12.89	3.67	344 25 56.32	55.68	78.1	15 35 8.0	7.6	14.1
31	ζ^1 Libræ	9	23 2.30	+ 0.13	**−21.67**	15 22 40.86	−3.83	343 38 50.90	49.78	80.5	−16 22 15.9	15.9	+11.4

1900 JUNE 7. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
32	α Ursæ Minoris S. P.	7	22 46.00	+ 3.03	**[−21.66]**	1 22	....	91 12 12.35	10.55	70.4	+88 46 21.5	23.9	....
33	83 Virginis	9	39 31.12	0.08	**21.87**	13 39 9.33	−3.33	344 20 11.08	8.22	76.7	−15 40 51.3	52.2	+18.4
34	89 Virginis	9	44 51.36	0.08	**21.87**	13 44 29.57	3.38	342 22 40.00	38.48	82.5	−17 38 28.2	27.8	18.6
35	50 Cassiopeiæ S. P.	.	.. ..	....	.....	1 54	....	108 1 10.18	10.72	142.1	+71 56 13.0	11.0	3.7
36	94 Virginis	9	1 25.12	+ 0.06	**−21.87**	14 1 3.31	−3.33	351 35 37.72	35.55	59.3	− 8 25 7.3	7.6	+15.2

Time.			Barom.	Att. Ther.	Ext. Ther.
d	h	m	cm.	°	°
27	11	52	75.54	17.7	17.0
5	13	13	75.98	21.5	20.1
	14	4	75.96	20.3	19.0
	14	51	75.95	19.4	18.2
	1	3	75.96	18.7	21.3
	1	57	75.96	20.7	22.5
6	13	38	75.76	21.6	20.4
	14	11	75.76	21.0	19.7
	15	18	75.74	19.8	18.8
7	13	13	75.31	25.5	24.2
	13	42	75.34	25.0	23.8

Bisections are made at II and VI, except as noted below.

1, 2, 4, 10, 23, 35.	Bisections at III and V.
5, 6, 19, 32.	Bisections at c_5 and c_1.
18, 20.	Bisection at IV.

Note.
14. Another star n. f.

Adopted Equator Point Corrections.

	° ′	A. ″	B. ″
1–4, from nadir	−77 50	8.6	11.8
6, 7, from nadir		+13.6	+13.7
5, 8–17, from stars		+13.1	+14.9
18–20, from nadir		+12.6	+12.5
21–31, from stars		+12.8	+13.6
32, from nadir		+14.3	+13.7
33–36, from stars		+13.4	+15.0

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
8	+12.4	+14.9
9	13.3	15.1
11	11.9	15.6
16	14.6	13.7
17	13.5	15.0
21	12.3	13.7
22	11.8	13.2
24	12.4	13.5
29	14.2	13.9
30	13.5	13.9
31	[12.9]	[13.7]
33	12.2	14.7
34	13.3	14.5
36	+13.4	+15.3

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ″	″	″
1	Rad. 1890, 3678	9	8 45.89	+0.07	−21.87	14 8 24.09	−3.42	348 38 24.72	23.78	65.8	−11 22 26.8	25.8	+15.6
2	W. B., XIV. 184	9	13 51.52	0.07	21.87	14 13 29.72	3.45	348 24 31.55	29.35	66.4	11 36 20.5	20.8	15.3
3	W. B., XIV. 283	9	18 49.58	0.07	21.87	14 18 27.78	3.49	347 31 27.70	25.85	68.6	12 29 26.6	26.5	15.2
4	Mayer 589	9	22 45.20	0.07	21.87	14 22 23.40	3.51	347 6 4.85	3.60	69.6	12 54 50.4	49.8	15.1
5	Mayer 592	9	32 5.82	0.07	**21.84**	14 31 44.03	3.49	348 7 48.95	48.38	67.2	11 53 3.9	2.6	14.1
6	8 Libræ	9	45 34.70	0.08	**21.86**	14 45 12.92	3.67	344 25 55.18	53.08	76.8	15 35 7.3	7.5	14.1
7	ζ¹ Libræ	9	23 2.53	+0.09	**−21.86**	15 22 40.76	3.83	343 38 49.38	47.95	79.2	−16 22 14.7	15.1	+11.4
8	γ Libræ	9	30 21.46	+0.08	**−21.85**	15 29 59.69	−3.81	345 33 27.65	24.40	73.8	−14 27 31.0	33.3	+10.4
9	κ Libræ	9	36 36.74	0.10	**21.89**	15 36 14.99	3.95	340 39 46.08	46.48	88.7	19 21 27.5	26.0	10.6
10	47 Libræ	9	49 39.26	0.10	21.85	15 49 17.51	3.98	340 55 47.50	47.75	87.8	19 5 25.2	23.8	9.3
11	Lal. 29044	9	53 45.09	0.11	21.85	15 53 23.35	4.01	340 21 60.25	59.38	89.8	19 39 14.4	14.1	9.0
12	Lal. 29156	9	57 44.13	0.11	21.85	15 57 22.39	4.02	340 27 20.60	20.15	89.5	19 33 53.8	53.0	8.6
13	O. A. 15199	9	0 15.57	0.12	21.85	15 59 53.84	4.08	338 27 15.98	16.22	96.9	21 34 5.8	4.3	8.6
14	ω² Scorpii	9	1 58.12	+0.11	−21.84	16 1 36.39	−4.06	339 25 15.42	14.35	93.2	−20 36 2.6	2.5	+ 8.3
15	ν Scorpii	9	6 36.70	+0.11	−21.84	16 6 14.97	−4.03	340 49 1.80	2.82	88.2	−19 12 11.2	9.0	+ 7.8
16	Lal. 29552	8	9 18.73	0.10	21.84	16 8 56.99	4.01	341 44 17.70	....	85.2	18 16 52.4	....	7.5
17	B. D. −18° 4266	9	15 7.44	0.11	21.84	16 14 45.71	4.03	341 34 5.82	4.18	85.8	18 27 4.8	5.2	7.0
18	Lal. 29770	8	17 18.97	0.12	21.84	16 16 57.25	4.16	337 8 22.98	22.48	102.2	22 53 4.0	3.2	7.0
19	χ Ophiuchi	9	21 39.39	0.11	21.84	16 21 17.66	4.03	341 47 16.98	17.08	85.1	18 13 53.0	51.6	6.3
20	B. D. −21° 4366	8	23 50.38	0.12	21.84	16 23 28.66	4.12	338 40 24.12	....	96.1	21 20 56.8	....	6.3
21	ω Ophiuchi	9	26 38.32	+0.12	−21.84	16 26 16.60	−4.13	338 46 4.95	5.48	95.7	−21 15 15.6	13.6	+ 6.0
22	Lal. 30207	9	32 45.71	+0.13	−21.84	16 32 24.00	−4.18	337 19 56.02	53.88	101.5	−22 41 30.3	31.0	+ 5.5
23	Mayer 671	9	35 6.56	0.12	21.84	16 34 44.84	4.11	339 48 22.18	23.00	91.9	20 12 54.6	52.3	5.2
24	O. A. 15868	9	37 31.30	0.12	21.84	16 37 9.58	4.14	338 52 7.25	7.15	95.4	21 9 13.0	11.6	5.0
25	Lal. 30551	9	44 2.97	0.12	21.83	16 43 41.26	4.16	338 20 42.15	41.45	97.4	21 40 40.0	39.3	4.3
26	24 Ophiuchi	9	51 12.00	0.13	**21.78**	16 50 50.30	4.21	337 1 53.30	52.75	102.8	22 59 34.3	33.4	3.6
27	η Ophiuchi	7	5 4.25	0.10	**21.82**	17 4 42.52	4.01	344 24	54.32	77.2	15 36	6.1	2.2
28	36 Ophiuchi	9	9 37.86	+0.15	**−21.89**	17 9 16.18	−4.32	333 34 20.28	18.65	119.6	−26 27 24.1	24.0	+ 2.2

1900 JUNE 8. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
29	β Andromedæ	9	4 31.71	−0.07	**−21.88**	1 4	....	35 5 15.85	15.35	3.7	+35 5 26.8	26.9	....
30	α Ursæ Minoris	8	22 57.16	5.98	**22.29**	1 22	....	88 45 2.78	0.32	64.9	88 46 21.9	20.0	....
31	β Arietis	9	49 30.43	−0.01	**−21.91**	1 49	....	20 19 19.08	16.85	18.4	+20 19 15.4	13.6	....

1900 JUNE 9. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
32	α Ursæ Minoris S. P.	7	22 51.86	−1.95	**[−20.49]**	1 22	....	91 12 12.85	10.75	70.9	+88 46 21.2	23.0	....
33	83 Virginis	9	39 31.11	+0.04	**21.83**	13 39 9.32	−3.32	344 20 11.35	8.35	77.1	−15 40 52.3	52.7	+18.3
34	89 Virginis	9	44 51.32	+0.04	**21.80**	13 44 29.53	3.37	342 22 41.32	38.68	82.9	−17 38 28.1	28.2	18.6
35	50 Cassiopeiæ S. P.	9	55 16.83	−0.10	**[21.86]**	1 54 54.90	1.67	108 1 10.25	8.78	142.8	+71 56 13.1	12.5	4.0
36	94 Virginis	9	1 25.11	+0.04	**21.85**	14 1 3.33	3.32	351 35 40.00	36.88	59.6	− 8 25 6.2	6.7	15.1
37	Rad. 1890, 3678	9	8 45.96	0.05	21.82	14 8 24.19	3.41	348 38 25.02	24.88	66.1	11 22 27.7	25.2	15.5
38	W. B., XIV. 184	9	13 51.48	+0.05	−21.82	14 13 29.71	−3.44	348 24 31.75	29.60	66.6	−11 36 21.4	21.0	+15.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
7 14 12	75.36	24.2	23.1
14 56	75.35	23.5	22.3
15 27	75.34	23.0	21.9
16 30	75.32	22.3	21.4
17 7	75.30	22.1	21.0
8 1 15	75.43	22.4	22.8
9 13 37	75.72	24.5	23.8
14 11	75.72	24.0	23.6

Bisections are made at II and VI, except as noted below.

14, 25.	Bisections at IV and VI.
16, 27.	Bisection at VI.
20, 29, 31.	Bisection at IV.
30, 32.	Bisections at c_1 and c_5.
35.	Bisections at III and V.

Notes.

11.	Double; observed brighter s. f.
16, 17, 18, 20.	Clouds
30.	Seeing good.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–6, from stars	+13.4	+15.0
7–28, from stars	+14.2	*
29–31, from nadir	+13.7	+14.2
32, from nadir	+13.6	+13.9
33–38, from stars	+12.5	+14.9

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
5	+14.8	+15.1
6	13.4	15.2
7	13.1	14.2
8	13.4	16.4
9	14.9	14.2
26	15.2	15.5
27	....	15.4
28	14.3	15.6
33	12.4	15.1
34	12.3	14.7
36	+11.5	+14.3

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0.
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	W. B., XIV. 283 ..	9	18 49.61	+0.05	−21.82	14 18 27.84	−3.48	347 31 29.35	26.00	68.8	−12 29 26.0	26.8	+15.1
2	Mayer 589	9	22 45.23	0.05	21.82	14 22 23.46	3.51	347 6 5.15	3.55	69.8	12 54 51.2	50.2	15.0
3	Mayer 592	9	32 5.78	0.05	**21.78**	14 31 44.01	3.51	348 7 50.05	49.22	67.3	11 53 3.8	2.0	14.0
4	8 Libræ	9	45 34.70	0.05	**21.83**	14 45 12.93	3.67	344 25 56.32	53.08	77.0	15 35 7.3	7.9	14.0
5	ζ¹ Libræ	9	23 2.54	0.06	**21.83**	15 22 40.79	3.84	343 38 50.20	48.38	79.4	16 22 14.9	14.5	11.2
6	γ Libræ	9	30 21.45	0.06	**21.81**	15 29 59.70	3.82	345 33 28.30	24.35	74.1	14 27 31.5	33.3	10.4
7	κ Libræ	9	36 36.71	+0.06	**−21.81**	15 36 14.96	−3.96	340 39 47.38	46.20	89.0	−19 21 27.3	26.3	+10.5
8	47 Libræ	9	49 39.27	+0.07	−21.80	15 49 17.54	−3.99	340 55 50.90	47.78	88.3	−19 5 23.0	24.0	+ 9.3
9	Lal. 29044	9	53 45.16	0.07	21.79	15 53 23.44	4.02	340 22 3.25	1.08	90.3	19 39 12.7	12.9	9.0
10	Lal. 29156	9	57 44.09	0.07	21.79	15 57 22.37	4.03	340 27 22.82	21.75	90.0	19 33 52.8	51.9	8.6
11	O. A. 15199	9	0 15.66	0.07	21.79	15 59 53.94	4.09	338 27 20.25	18.52	97.5	21 34 2.9	2.6	8.6
12	ω² Scorpii	9	1 58.19	0.07	21.79	16 1 36.47	4.07	339 25 16.88	15.90	93.8	20 36 2.6	1.5	8.3
13	ν Scorpii	9	6 36.73	0.07	21.79	16 6 15.01	4.05	340 49 3.85	3.50	88.9	19 12 10.7	9.0	7.7
14	Lal. 29552	9	9 18.69	+0.07	−21.79	16 8 56.97	−4.02	341 44 20.75	19.68	85.9	−18 16 50.8	49.9	+ 7.4
15	Piazzi XVI. 28	9	11 34.22	+0.07	−21.79	16 11 12.50	−4.07	340 9 50.12	49.55	91.3	−19 51 26.8	25.4	+ 7.3
16	B. D. −18° 4266 ..	9	15 7.36	0.07	21.79	16 14 45.64	4.04	341 34 8.10	6.05	86.5	18 27 4.1	4.1	6.9
17	Lal. 29770	9	17 18.99	0.08	21.78	16 16 57.29	4.17	337 8 25.15	24.62	103.2	22 53 3.7	2.3	7.0
18	χ Ophiuchi	9	21 39.37	0.07	21.78	16 21 17.66	4.05	341 47 20.02	18.60	85.9	18 13 51.5	51.0	6.2
19	B. D. −21° 4366 ..	9	23 50.37	0.08	21.78	16 23 28.67	4.14	338 40 26.78	25.48	97.0	21 20 55.9	55.2	6.2
20	ω Ophiuchi	9	26 38.27	0.08	21.78	16 26 16.57	4.14	338 46 7.50	7.70	96.6	21 15 14.7	12.6	6.0
21	O. A. 15742	9	29 21.32	+0.08	−21.78	16 28 59.62	−4.10	340 17 16.52	16.95	91.0	−19 43 60.1	57.8	+ 5.6
22	O. A. 15773	8	32 7.16	+0.08	−21.78	16 31 45.46	−4.17	338 10 9.32	8.35	99.0	−21 51 15.3	14.4	+ 5.5
23	Mayer 671	9	35 6.56	0.08	21.78	16 34 44.86	4.12	339 48 24.80	24.52	92.7	20 12 53.6	51.9	5.1
24	O. A. 15868	9	37 31.24	0.08	21.78	16 37 9.54	4.16	338 52 9.75	8.78	96.2	21 9 12.1	11.1	4.9
25	Lal. 30551	9	44 3.01	0.08	21.77	16 43 41.32	4.18	338 20 45.12	44.05	98.3	21 40 38.8	38.1	4.3
26	24 Ophiuchi	9	51 12.02	0.09	**21.74**	16 50 50.34	4.23	337 1 56.32	54.08	103.8	22 59 32.9	33.5	3.6
27	η Ophiuchi	9	5 4.24	0.08	**21.77**	17 4 42.55	4.03	344 24 57.90	55.98	77.9	15 36 5.7	5.8	2.1
28	36 Ophiuchi	9	9 37.83	+0.10	**−21.79**	17 9 16.17	−4.34	333 34 21.42	20.48	120.7	−26 27 24.9	24.0	+ 2.2

1900 JUNE 11. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

29	θ Virginis	9	5 10.95	+ 0.03	[**−21.73**]	13 4	....	355 0	.....	.....	− 5 0	....	....
30	α Ursæ Minoris S. P.	4	23 4.20	−10.62	[**22.02**]	1 22	....	91 12 13.00	5.65	70.0	+88 46 21.6	22.6	....
31	83 Virginis	9	39 31.03	0.01	**21.71**	13 39 9.27	−3.31	344 20 10.25	1.08	76.2	−15 40 51.0	52.0	+18.2
32	89 Virginis	9	44 51.35	0.02	**21.78**	13 44 29.59	3.36	342 22 39.45	29.68	82.0	−17 38 27.6	29.2	18.5
33	50 Cassiopeiæ S. P ...	9	55 17.37	− 0.70	[**21.66**]	1 54 54.93	1.81	108 1 10.90	5.55	141.2	+71 56 12.6	10.2	4.2
34	94 Virginis	9	1 25.01	+ 0.01	**21.73**	14 1 3.29	3.31	351 35 37.35	29.00	58.9	− 8 25 6.7	6.8	15.0
35	Rad. 1890, 3678 ...	9	8 45.82	+ 0.01	− 21.73	14 8 24.10	−3.40	348 38 23.82	16.48	65.4	−11 22 26.7	25.8	+ 15.4
36	W. B., XIV. 184 ..	9	13 51.44	+ 0.01	− 21.72	14 13 29.73	−3.43	348 24 30.55	21.75	65.9	−11 36 20.4	21.0	+15.1
37	W. B., XIV. 283 ..	9	18 49.47	0.00	21.72	14 18 27.75	3.47	347 31 27.52	18.15	68.1	12 29 25.7	26.8	15.0
38	Mayer 589	9	22 45.11	0.00	21.72	14 22 23.39	3.50	347 5 64.80	55.58	69.1	12 54 49.4	50.4	14.9
39	Mayer 592	9	32 5.73	0.01	**21.70**	14 31 44.03	3.50	348 7 47.52	41.02	66.7	11 53 4.3	2.5	13.9
40	8 Libræ	9	45 34.64	0.00	**21.73**	14 45 12.94	3.66	344 25 53.72	46.78	76.2	15 35 7.6	6.3	13.9
41	ζ¹ Libræ	9	23 2.44	0.00	**21.67**	15 22 40.76	3.84	343 38 48.38	41.42	78.6	16 22 14.7	14.5	11.2
42	γ Libræ	9	30 21.35	+ 0.01	− **21.66**	15 29 59.68	−3.82	345 33 26.28	17.35	73.3	−14 27 31.5	33.3	+10.3
43	κ Libræ	9	36 36.64	0.00	− **21.68**	15 36 14.96	−3.96	340 39 45.08	38.92	88.1	−19 21 27.5	26.5	+10.4
44	47 Libræ	9	49 39.24	0.00	21.68	15 49 17.56	4.00	340 55 47.95	40.80	87.2	19 5 23.7	23.7	9.2
45	Lal. 29044	9	53 45.07	0.00	21.68	15 53 23.39	4.03	340 21 60.82	52.05	89.2	19 39 12.8	14.5	8.9
46	Lal. 29156	9	57 44.04	0.00	21.68	15 57 22.36	4.04	340 27 17.95	13.78	88.9	19 33 55.4	52.4	8.5
47	O. A. 15199	9	0 15.60	− 0.01	21.68	15 59 53.91	4.10	338 27 15.42	9.32	96.2	21 34 5.2	4.2	8.5
48	ω² Scorpii	9	1 58.08	0.00	− 21.67	16 1 36.41	−4.08	339 25 14.65	7.70	92.6	−20 36 2.4	2.2	+ 8.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
9 14 39	75.73	23.9	23.5
15 34	75.74	23.3	22.6
16 20	75.77	22.0	20.4
16 47	.....	.. .	20.4
17 7	75.80	21.0	20.2
11 13 38	75.68	28.0	26.9
14 16	75.67	27.4	26.2
15 33	75.68	26.2	25.0

Bisections are made at II and VI, except as noted below.

13. Bisections at IV and VI.
30. Bisections at c_5 and c_2.
33. Bisections at III and V.

Notes.

1. Very unsteady.
25. Seeing bad; very cold wave.
30. Through clouds.
44, 46. First bisection doubtful.
44. Seeing bad.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–4, from stars......	+12.5	+14.9
5–28, from stars......	+13.4	*
29, 30, from nadir	+14.0	+20.6
31–40, from stars......	+14.0	+21.9
41–48, from stars......	+14.6	+21.4

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
3	+13.9	+14.4
4	12.6	15.5
5	12.7	14.2
6	13.1	16.7
7	14.0	14.8
26	13.2	15.1
27	13.0	14.6
28	14.3	14.9
31	12.7	21.6
32	13.4	22.9
34	13.6	21.6
39	16.0	22.1
40	14.5	21.1
41	13.7	20.3
42	14.4	23.0
43	+15.5	+21.3

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ν Scorpii	9	6 36.66	0.00	−21.67	16 6 14.99	−4.05	340 48 61.00	54.90	87.7	−19 12 11.2	10.1	+7.7
2	Lal. 29552	9	9 18.63	0.00	21.67	16 8 56.96	4.03	341 44 17.70	9.88	84.6	18 16 51.4	52.1	7.3
3	B. D. −18° 4266	8	15 7.35	0.00	21.67	16 14 45.68	4.05	341 33 64.10	57.28	85.2	18 27 5.5	5.3	6.8
4	ψ Ophiuchi	9	18 40.71	0.00	21.67	16 18 19.04	4.10	340 12 55.85	48.35	89.8	19 48 18.4	18.8	6.6
5	χ Ophiuchi	9	21 39.36	0.00	21.67	16 21 17.69	4.06	341 47 16.68	10.45	84.5	18 13 52.3	51.4	6.2
6	B. D. −21° 4366	8	23 50.37	0.00	21.67	16 23 28.70	4.16	338 40 23.60	17.30	95.5	21 20 56.3	55.5	6.2
7	ω Ophiuchi	9	26 38.22	0.00	−21.67	16 26 16.55	−4.16	338 45 63.45	58.70	95.2	−21 15 16.2	13.8	+5.9
8	O. A. 15742	9	29 21.27	0.00	−21.67	16 28 59.60	−4.12	340 17 13.45	7.30	89 6	−19 43 60.6	59.6	+5.5
9	Lal. 30207	9	32 45.64	0.00	21.67	16 32 23.97	4.21	337 19 54.60	47.72	100.9	22 41 30.7	30.5	5.4
10	Mayer 671	9	35 6.54	0.00	21.67	16 34 44.87	4.14	339 48 20.78	14.78	91.4	20 12 55.1	54.0	5.0
11	O. A. 15868	9	37 31.24	0.00	21.67	16 37 9.57	4 17	338 52 6.85	0.82	94.8	21 9 12.4	11.3	4.8
12	Lal. 30551	9	44 2.99	0.00	21.66	16 43 41.33	4.20	338 20 40.22	34.70	96.9	21 40 41.1	39.5	4.2
13	24 Ophiuchi	9	51 12.03	0.00	**21.64**	16 50 50.37	4.25	337 1 54.12	47.15	102.3	22 59 32.6	32.5	3.5
14	36 Ophiuchi	9	9 37.85	0.00	**−21.68**	17 9 16.19	−4.37	333 34 18.60	11.85	119.0	−26 27 24.8	24.4	+2.2

1900 JUNE 19. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
15	ζ¹ Libræ	9	23 2.41	+0.14	**−21.78**	15 22 40.77	−3.84	343 38 49.55	43.28	81.9	−16 22 16.0	15.5	+11.2
16	γ Libræ	9	30 21.32	0.13	**21.74**	15 29 59.67	3.83	345 33 27.92	20.90	76.4	14 27 32.2	32.4	10.1
17	κ Libræ	9	36 36.62	0.16	**21.81**	15 36 15.01	3.97	340 39 49.38	42.75	91.7	19 21 26.0	25.9	10.5
18	47 Libræ	9	49 39.16	0.16	21.76	15 49 17.56	4.02	340 55 50.95	44.30	90.8	19 5 23.5	23.6	9.3
19	Lal. 29044	9	53 45.07	0.16	21.76	15 53 23.47	4.05	340 21 61.98	56.60	92.8	19 39 14.5	13.3	9.0
20	Lal. 29156	9	57 44.03	+0.16	−21.76	15 57 22.43	−4.06	340 27 22.50	16.95	92.5	−19 33 53.7	52.7	+ 8.6
21	O. A. 15199	9	0 15.46	+0.18	−21.76	15 59 53.88	−4.13	338 27 19.42	13.62	100.2	−21 34 4.4	3.8	+ 8.7
22	ν Scorpii	9	6 36.66	0.16	21.75	16 6 15.07	4.08	340 48 64.08	58.90	91.3	19 12 10.9	9.6	7.7
23	Lal. 29552	9	9 18.63	0.16	21.75	16 8 57.04	4.06	341 44 21.90	15.15	88.1	18 16 49.9	50.3	7.4
24	Piazzi XVI. 28	9	11 34.18	0.17	21.75	16 11 12.60	4.12	340 9 51.48	45.55	93.6	19 51 25.8	25.4	7.4
25	B. D. −18° 4266	9	15 7.35	0.16	21.75	16 14 45.76	4.09	341 34 8.40	0.85	88.7	18 27 4.0	5.2	6.8
26	Lal. 29770	9	17 18.99	+0.19	−21.75	16 16 57.43	−4.22	337 8 25.30	19.62	105.8	−22 53 4.1	3.5	+ 7.2
27	χ Ophiuchi	9	21 39.37	+0.16	−21.75	16 21 17.78	−4.10	341 47 20.65	14.32	88.0	−18 13 51.0	51.1	+ 6.2
28	B. D. −21° 4366	9	23 50.32	0.18	21.74	16 23 28.76	4.20	338 40 27.18	20.40	99.4	21 20 55.9	56.4	6.4
29	ω Ophiuchi	9	26 38.26	0.18	21.74	16 26 16.70	4.20	338 46 8.25	2.08	99.0	21 15 14.4	14.3	6.1
30	O. A. 15742	6	29 21.28	0.17	21.74	16 28 59.71	4.16	340 17 16.50	11.75	93.2	19 43 60.3	59.0	5.6
31	Uranus	9	32 41.06	0.18	21.74	16 32 19.50	....	338 8 34.80	29.02	101.5	21 52 50.3	50.0	....
32	Mayer 671	9	35 6.58	+0.17	− 21 74	16 34 45.01	−4.19	339 48 24.78	19.98	95.0	−20 12 53.9	52.6	+ 5.1
33	O. A. 15868	9	37 31.23	+0.18	−21.74	16 37 9.67	−4.23	338 52 9.65	3.92	98.6	−21 9 12.6	12.3	+ 5.0
34	Lal. 30551	9	44 2.98	0.18	21.73	16 43 41.43	4.25	338 20 45.08	39.20	100.7	21 40 39.3	39.1	4.4
35	24 Ophiuchi	9	51 11.86	0.19	**21.60**	16 50 50.32	4.31	337 1 56.60	51.15	106.3	22 59 33.3	32.9	3.7
36	η Ophiuchi	9	5 4.27	0.14	**21.77**	17 4 42.69	4.12	344 24 58.40	51.65	79.8	15 36 5.1	6.1	1.6
37	36 Ophiuchi	9	9 37.82	+0.22	**−21.79**	17 9 16.32	−4.45	333 34 27.20	21.28	123.5	−26 27 19.9	20.1	+ 2.6

1900 JUNE 20. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
38	α Ursæ Minoris S. P.	8	22 56.62	+5.45	**[−21.99]**	1 22	....	91 12 9.90	3.58	71.6	+88 46 20.6	22.4	....
39	83 Virginis	7	39 31.23	0.09	**22.08**	13 39 9.21	−3.24	344 20 10.75	2.60	77.9	−15 40 51.5	52.0	+18.0
40	89 Virginis	9	44 51.49	0.10	**22.11**	13 44 29.48	3.29	342 22 40.52	32.55	83.8	−17 38 27.6	28.0	18.4
41	50 Cassiopeiæ S. P.	9	55 17.43	0.41	**[22.16]**	1 54 55.73	2.48	108 1 6.88	2.20	144.4	+71 56 12.7	12.2	4.8
42	94 Virginis	9	1 25.26	+0.07	**−22.08**	14 1 3.23	3.27	351 35 38.62	31.05	60.3	−8 25 6.1	6.0	+14.6

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
11 16 39	75.68	25.2	24.2
17 6	75.70	25.0	23.8
19 15 28	75.98	16.5	15.1
16 14	76.00	16.0	*58.5
16 40	76.01	15.7	*58.2
17 8	76.01	15.5	14.6
20 13 17	75.86	23.7	21.9
13 58	75.84	23.0	20.8
			*Fahr.

Bisections are made at II and VI, except as noted below.

3, 6, 30, 37. Bisections at IV and VI.
38. Bisections at c_5 and c_1.

Notes.

6.	Hurried.
18–37.	Very unsteady.
37.	Poor.
38.	Seeing good.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–14, from stars	+14.6	+21.4
15–37, from stars.	+15.4	+21.2
38, from nadir	+16.4	+21.0
39–42, from stars	+14.7	+22.0

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
13	+14.0	+20.7
14	15.4	21.8
15	15.8	21.8
16	16.1	22.8
17	14.7	21.0
35	15.3	20.5
36	14.9	21.3
37	[10.9]	[16.5]
39	14.1	21.9
40	14.2	21.9
42	+14.1	+21.3

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	κ Virginis	9	7 59.01	+ 0.07	−**22.14**	14 7 36.98	−3.32	350 11 63.90	55.78	63.3	− 9 48 43.8	44.3	+14.8
2	λ Virginis	9	14 7.28	0.08	**22.12**	14 13 45.26	3.41	347 5 59.90	53.40	70.7	12 54 55.2	54.1	15.2
3	2 Libræ	9	18 28.14	0.08	22.10	14 18 6.12	3.40	348 45 10.10	(2.12)	66.7	11 15 41.0	41.4	14.5
4	Bradley 1861	9	19 43.76	0.08	22.10	14 19 21.74	3.41	348 47	34.95	66.6	11 13	8.6	14.4
5	Mayer 589	8	22 45.40	0.08	22.09	14 22 23.39	3.45	347 5 64.78	57.82	70.7	12 54 50.2	49.6	14.6
6	Mayer 592	9	32 5.95	0.08	**22.03**	14 31 43.94	3.46	348 7 49.60	42.10	68.2	11 53 3.0	2.9	13.6
7	8 Libræ	9	45 34.89	+ 0.09	−**22.10**	14 45 12.90	−3.63	344 25 54.90	47.55	78.0	−15 35 7.5	7.2	+13.8
8	ζ¹ Libræ	9	23 2.74	+ 0.10	−**22.07**	15 22 40.77	−3.84	343 38 48.42	42.45	80.5	−16 22 15.4	14.5	+11.1
9	γ Libræ	9	30 21.65	0.09	**22.03**	15 29 59.67	3.83	345 33 26.80	18.90	75.1	14 27 31.5	32.7	10.0
10	κ Libræ	9	36 37.01	0.10	**22.14**	15 36 15.04	3.97	340 39 46.70	40.15	90.2	19 21 26.7	26.4	10.5
11	47 Libræ	9	49 39.58	0.10	22.07	15 49 17.61	4.02	340 55 47.85	41.12	89.3	19 5 24.5	24.4	9.2
12	Lal. 29044	9	53 45.44	0.11	22.07	15 53 23.48	4.05	340 21 60.35	53.72	91.3	19 39 14.0	13.8	9.0
13	Lal. 29156	9	57 44.39	+ 0.11	−22.07	15 57 22.43	−4.06	340 27 20.68	15.25	91.0	−19 33 53.3	51.9	+ 8.6
14	O. A. 15199	9	0 15.88	+ 0.11	−22.07	15 59 53.92	−4.13	338 27 16.15	10.80	98.5	−21 34 5.3	3.8	+ 8.7
15	ω² Scorpii	9	1 58.44	0.11	22.07	16 1 36.48	4.10	339 25 14.62	8.82	94.7	20 36 3.0	2.0	8.4
16	ν Scorpii	9	6 37.03	0.10	22.07	16 6 15.06	4.08	340 48 62.80	56.02	89.7	19 12 9.9	9.7	7.7
17	Lal. 29552	9	9 18.98	0.10	22.07	16 8 57.01	4.06	341 44 18.68	12.12	86.6	18 16 50.9	50.5	7.3
18	Piazzi XVI. 28	9	11 34.51	0.11	22.07	16 11 12.55	4.12	340 9 49.50	42.20	92.0	19 51 25.5	25.8	7.3
19	B. D. −18° 4266	9	15 7.69	0.10	22.07	16 14 45.72	4.09	341 33 66.32	58.92	87.2	18 27 3.7	4.3	6.8
20	Lal. 29770	9	17 19.31	+ 0.12	−22.07	16 16 57.36	−4.23	337 8 22.65	15.98	103.9	−22 53 4.1	3.8	+ 7.0
21	χ Ophiuchi	9	21 39.74	+ 0.10	−22.07	16 21 17.77	−4.10	341 47 18.12	11.72	86.4	−18 13 51.1	50.6	+ 6.1
22	B. D. −21° 4366	9	23 50.69	0.11	22.07	16 23 28.73	4.20	338 40 23.90	17.22	97.6	21 20 56.5	56.3	6.4
23	ω Ophiuchi	9	26 38.62	0.11	22.07	16 26 16.66	4.20	338 46 4.60	0.28	97.3	21 15 15.5	12.8	6.0
24	O. A. 15742	9	29 21.64	0.11	22.07	16 28 59.68	4.16	340 17 15.08	8.82	91.6	19 43 59.3	58.6	5.6
25	Lal. 30207	8	32 45.99	0.12	22.07	16 32 24.04	4.26	337 19 56.62	49.48	103.2	22 41 29.3	29.5	5.6
26	Mayer 671	9	35 6.91	0.11	22.07	16 34 44.95	4.19	339 48 22.20	16.88	93.3	20 12 53.8	52.2	5.1
27	O. A. 15868	9	37 31.61	+ 0.11	−22.07	16 37 9.65	−4.23	338 52 6.92	0.52	96.9	−21 9 12.7	12.4	+ 5.1
28	Lal. 30551	9	44 3.31	+ 0.11	−22.07	16 43 41.35	−4.26	338 20 42.62	35.28	99.0	−21 40 39.0	39.4	+ 4.3
29	24 Ophiuchi	9	51 12.37	0.12	**22.03**	16 50 50.42	4.32	337 1 54.22	47.15	104.5	22 59 32.9	33.0	3.7
30	η Ophiuchi	9	5 4.67	0.09	**22.11**	17 4 42.69	4.13	344 24 55.48	48.38	78.4	15 36 5.5	5.6	1.6
31	36 Ophiuchi	9	9 38.19	+ 0.13	**22.06**	17 9 16.25	−4.46	333 34 18.78	12.12	121.4	−26 27 25.1	25.6	+ 2.6
32	β Andromedæ	9	4 32.52	− 0.16	[**22.18**]	1 4	....	35 5 14.65	10.90	3.7	+35 5 27.7	28.4	....
33	α Ursæ Minoris	9	23 16.93	−12.24	[−**24.10**]	1 22	....	88 45 57.85	52.12	65.9	+88 46 20.2	18.7	....

1900 JUNE 21. CLAMP EAST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
34	α Ursæ Minoris S. P.	7	23 3.71	−0.39	[−**22.19**]	1 22	....	91 12 10.40	3.92	71.2	+88 46 19.9	21.9	....
35	83 Virginis	9	39 31.61	+0.06	**22.44**	13 39 9.25	−3.23	344 20 8.92	1.18	77.4	−15 40 52.1	52.5	+18.0
36	89 Virginis	9	44 51.84	0.06	**22.43**	13 44 29.48	3.28	342 22 38.60	31.28	83.3	−17 38 28.3	28.3	18.4
37	50 Cassiopeiæ S. P.	9	55 18.20	0.06	[**22.51**]	1 54 55.84	2.55	108 1 9.08	3.22	143.4	+71 56 10.7	9.7	4.8
38	94 Virginis	9	1 25.57	0.05	**22.39**	14 1 3.20	3.25	351 35 37.38	29.88	59.8	− 8 25 6.0	6.2	14.5
39	κ Virginis	9	7 59.32	+0.05	− **22.44**	14 7 36.95	−3.31	350 11 63.50	55.00	62.8	− 9 48 42.9	44.1	+14.6
40	λ Virginis	9	14 7.63	+0.06	− **22.45**	14 13 45.27	−3.41	347 5 59.50	52.65	70.1	12 54 54.2	53.7	+15.1
41	2 Libræ	9	18 28.46	0.06	22.42	14 18 6.10	3.39	348 45 8.35	.....	66.1	11 15 41.4	....	14.4
42	Bradley 1861	9	19 44.04	0.05	22.42	14 19 21.67	3.40	348 47 38.38	31.60	66.1	11 13 11.3	10.8	14.3
43	Mayer 592	.	.. ..	....	.....	14 31	....	348 7 48.08	41.60	67.7	11 53 3.2	2.4	13.5
44	8 Libræ	9	45 35.20	+0.06	− **22.38**	14 45 12.84	−3.63	344 25 53.80	46.68	77.4	−15 35 7.2	7.0	+13.7

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
20 14 47	75.83	21.1	20.0
15 33	75.825	20.2	19.0
16 20	75.815	19.5	18.8
17 7	75.80	19.1	18.5
1 18	75.75	18.0	20.0
1 57	75.74	19.4	21.6
21 13 18	75.41	23.0	21.7
13 58	75.40	22.4	21.2
14 48	75.40	21.5	20.4

Bisections are made at II and VI, except as noted below.

4, 32. Bisection at IV.
5. Bisections at IV and VI.
33, 37. Bisections at III and V.
34. Bisections at c_5 and c_1.
41. Bisection at II.

Notes.

3. Each microscope on circle B increased 10″.
36. First bisection doubtful.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–7, from stars	+14.7	+22.0
8–31, from stars $15^h\ 30^m$	+15.87	*
$17\ \ 2$	+16.50	
32, 33, from nadir	+15.8	+20.2
34, from nadir	+17.0	+21.6
35–44, from stars	+15.5	+22.5

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+13.9	+21.7
2	15.7	21.9
6	15.7	22.9
7	15.2	22.2
8	15.7	21.3
9	16.0	23.6
10	15.9	22.1
29	15.9	22.7
30	16.4	23.2
31	17.2	23.6
35	15.5	22.9
36	15.7	22.7
38	14.9	22.1
39	14.0	22.2
40	15.6	22.1
43	16.8	23.0
44	+15.8	+22.6

1900 JUNE 22. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α Ursæ Minoris S. P.	7	23 9.49	−4.26	[**−23.01**]	1 22	....	91 12 10.08	3.12	70.9	+88 46 20.1	22.4	....
2	83 Virginis..........	9	39 31.77	+0.03	**22.58**	13 39 9.22	−3.22	341 20 7.98	0.08	77.2	−15 40 51.6	52.3	+17.9
3	89 Virginis..........	9	44 52.04	+0.03	**22.61**	13 44 29.49	3.27	342 22 38.45	30.20	83.1	−17 38 27.0	28.0	18.3
4	50 Cassiopeiæ S. P....	9	55 18.73	−0.24	[**22.66**]	1 54 55.92	2.63	108 1 6.55	2.85	143.2	+71 56 12.2	9.2	4.9
5	Anonymous	9	1 51.19	+0.04	−22.57	14 1 28.66	−3.25	351 10 19.08	9.10	60.6	− 8 50 23.9	26.7	+14.5
6	κ Virginis..........	9	7 59.46	+0.04	−**22.57**	14 7 36.93	−3.31	350 11 61.22	53.60	62.7	− 9 48 43.9	44.3	+14.5
7	λ Virginis..........	9	14 7.72	0.04	**22.53**	14 13 45.19	3.40	347 5 57.82	51.05	70.0	12 54 54.6	54.1	15.1
8	2 Libræ............	9	18 28.61	0.04	22.56	14 18 6.09	3.39	348 45 6.82	1.60	66.1	11 15 41.7	39.8	14.3
9	Bradley 1861......	9	19 44.25	0.04	22.56	14 19 21.73	3.39	348 47 37.62	31.08	66.0	11 13 10.8	10.1	14.2
10	Mayer 592........	9	32 6.49	+0.04	−**22.54**	14 31 43.97	− 3.45	348 7 47.22	41.25	67.6	− 11 53 2.8	1.5	+13.4
11	8 Libræ............	9	45 35.34	+0.04	−**22.51**	14 45 12.83	−3.62	344 26 52.68	45.88	77.3	−15 35 7.0	6.6	+13.7
12	ζ¹ Libræ............	9	23 3.26	0.05	**22.55**	15 22 40.78	3.83	343 38 47.12	40.02	79.7	16 22 14.8	14.6	11.0
13	γ Libræ............	9	30 22.17	0.04	**22.51**	15 29 59.68	3.82	345 33 24.30	16.80	74.3	14 27 32.3	32.5	9.9
14	κ Libræ............	9	36 37.50	0.05	**22.58**	15 36 15.03	3.97	340 39 45.25	38.05	89.2	19 21 26.2	26.1	10.4
15	β Scorpii............	9	0 3.91	+0.05	−22.51	15 59 41.45	−4.07	340 29 11.08	3.32	89.9	−19 32 1.1	1.5	+ 8.3

1900 JUNE 23. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

16	α Ursæ Minoris S. P.	7	23 14.63	−8.37	[**−22.90**]	1 22	....	91 12 11.05	4.00	70.7	+88 46 19.6	22.1	....
17	83 Virginis..........	9	39 31.93	+0.01	**22.73**	13 39 9.22	−3.21	340 19 69.32	59.88	77.0	−15 40 51.2	52.2	+17.9
18	89 Virginis..........	9	44 52.16	0.00	**22.71**	13 44 29.44	3.26	342 22 38.80	29.95	82.8	−17 38 27.5	27.9	18.3
19	50 Cassiopeiæ S. P....	9	55 19.08	−0.51	[**22.66**]	1 54 55.86	2.71	108 1 8.38	3.62	142.7	+71 56 12.0	8.8	4.9
20	94 Virginis..........	9	1 25.93	+0.02	**22.74**	14 1 3.25	3.23	351 35 36.42	28.35	59.5	− 8 25 6.6	6.3	14.3
21	κ Virginis..........	9	7 59.56	+0.02	−**22.66**	14 7 36.88	−3.30	350 11 63.05	53.58	62.5	− 9 48 43.0	44.0	+14.4
22	λ Virginis..........	9	14 7.91	+0.01	−**22.70**	14 13 45.22	−3.39	347 5 58.85	50.98	69.7	−12 54 54.3	53.8	+15.0
23	2 Libræ............	.	.. ..	....	.....	14 18	....	348 45 6.20	.....	65.8	11 15 43.1	....	14.2
24	Bradley 1861......	9	19 44.44	0.02	22.69	14 19 21.77	3.39	348 47 37.58	30.55	65.7	11 13 11.6	10.2	14.1
25	Mayer 592........	9	32 6.63	0.02	**22.67**	14 31 43.97	3.44	348 7 48.25	40.20	67.3	11 53 2.5	2.2	13.4
26	8 Libræ............	9	45 35.54	+0.01	−**22.68**	14 45 12.88	−3.62	344 25 52.22	45.02	76.9	−15 35 8.2	6.9	+13.6

1900 JUNE 25. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

27	ζ¹ Libræ............	9	23 3.64	−0.08	−**22.80**	15 22 40.76	−3.83	343 38 45.00	37.08	78.4	−16 22 15.6	15.2	+ 10.9
28	γ Libræ............	9	30 22.52	0.06	**22.77**	15 29 59.66	3.81	345 33 23.25	13.70	73.1	14 27 32.0	33.2	9.8
29	κ Libræ............	9	36 37.87	0.10	**22.81**	15 36 14.96	3.96	340 39 44.42	34.88	87.8	19 21 25.5	26.6	10.3
30	λ Libræ............	9	47 58.62	0.10	**22.84**	15 47 35.71	4.03	340 8 57.62	50.10	89.6	19 52 14.1	13.1	9.4
31	Piazzi XV. 210....	9	51 47.90	−0.11	−22.81	15 51 24.98	−4.08	338 49 26.35	16.95	94.4	−21 11 50.2	51.0	+ 9.3
32	Lal. 2904........	9	55 41.42	−0.11	−22.82	15 55 18.49	−4.09	339 8 43.08	35.85	93.2	−20 52 32.3	30.9	+ 8.9
33	β Scorpii............	9	0 4.28	0.10	22.82	15 59 41.36	4.06	340 29 8.60	0.08	88.4	19 32 1.9	1.7	8.3
34	Piazzi XVI. 10....	9	8 14.72	0.11	22.82	16 7 51.79	4.15	338 52 27.32	19.75	94.2	21 8 48.9	47.8	7.7
35	Piazzi XVI. 28....	9	11 35.46	−0.10	−22.82	16 11 12.54	−4.13	340 9 46.48	36.80	89.6	−19 51 25.3	26.1	+ 7.1

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
22 13 25	75.29	23.8	22.1
15 58	75.30	23.0	21.3
14 35	75.32	22.1	20.8
15 16	75.31	21.5	20.2
15 50	75.33	21.2	20.0
23 13 22	75.61	25.6	24.0
13 58	75.62	24.8	23.5
14 34	75.63	24.2	23.2
25 15 25	75.51	26.0	25.4
16 2	75.51	25.8	25.2

Bisections are made at II and VI, except as noted below.

1. Bisections at c_5 and c_1.
4, 19. Bisections at III and V.
8. Bisections at II and V.
16. Bisections at V and IV.
23. Bisection at V.

Notes.

9, 24. Double; distance 1¼″.
15, 23. Clouds.
35. Through clouds; transits poor.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1, from nadir.........	+17.4	+22.2
2–11, from stars	+16.7	+23.6
12–15, from stars	+16.8	+23.8
16, from nadir.........	+17.2	+22.2
17–26, from stars	+15.6	+23.7
27–35, from stars	+16.9	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
2	+16.3	+23.9
3	15.7	23.6
6	16.3	23.6
7	17.2	23.6
10	17.7	23.3
11	16.8	23.3
12	16.2	23.0
13	17.8	25.0
14	16.4	23.3
17	14.8	23.9
18	15.1	23.6
20	15.8	23.6
21	14.4	23.5
22	15.9	23.5
25	16.3	24.1
26	17.0	23.8
27	17.2	24.8
28	17.7	27.0
29	15.9	25.1
30	+16.0	+23.2

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec \delta + n \tan \delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Piazzi XVI. 39	9	13 43.36	−0.10	−22.82	16 13 20.44	−4.14	340 2 40.15	29.82	90.0	−19 58 32.0	33.5	+ 7.0
2	Lal. 29770	9	17 20.34	0.13	22.83	16 16 57.38	4.24	337 8 17.78	.....	101.2	22 53 5.5	....	7.1
3	ψ Ophiuchi	9	18 42.06	0.10	22.83	16 18 19.13	4.15	340 12 53.88	45.05	89.4	19 48 17.7	17.6	6.4
4	ω Ophiuchi	9	26 39.64	0.11	22.83	16 26 16.70	4.22	338 45 61.55	54.35	94.7	21 15 15.3	13.5	5.9
5	Lal. 30207	9	32 47.06	−0.13	−22.83	16 32 24.10	−4.28	337 19 52.55	44.25	100.4	−22 41 30.0	29.3	+ 5.5
6	Bradley 2115	9	36 28.01	−0.10	−22.84	16 36 5.07	−4.20	340 17 9.22	1.12	89.2	−19 44 2.1	1.1	+ 4.7
7	15 Ophiuchi	9	39 35.04	0.13	22.84	16 39 12.07	4.31	337 1 26.52	18.02	101.7	22 59 57.3	56.7	4.8
8	24 Ophiuchi	9	51 13.43	0.13	**22.81**	16 50 50.46	4.35	337 1 50.72	.....	101.7	22 59 33.1	....	3.6
9	η Ophiuchi	9	5 5.57	0.07	**22.82**	17 4 42.65	4.16	344 24 53.32	43.10	76.4	15 36 5.3	6.0	1.4
10	36 Ophiuchi	9	9 39.37	-0.16	−**22.92**	17 9 16.36	−4.49	333 34 15.35	7.25	118.3	−26 27 25.1	23.7	+ 2.5

1900 JUNE 26. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

11	ζ¹ Libræ	9	23 3.80	−0.20	−**22.85**	15 22 40.72	−3.82	343 38 45.95	37.62	78.9	−16 22 15.2	14.3	+10.9
12	γ Libræ	9	30 22.71	0.18	**22.84**	15 29 59.66	3.81	345 33 24.35	13.52	73.6	14 27 31.5	33.0	9.8
13	κ Libræ	9	36 38.09	0.24	**22.89**	15 36 14.98	3.96	340 39 43.95	34.92	88.4	19 21 26.6	26.4	10.3
14	λ Libræ	9	47 58.83	0.24	**22.91**	15 47 35.72	4.03	340 8 57.45	48.65	90.2	19 52 14.8	14.4	9.5
15	Piazzi XV. 210	9	51 48.11	0.26	22.87	15 51 24.98	4.08	338 49 26.15	17.02	95.0	21 11 50.9	50.7	9.3
16	Lal. 29094	9	55 41.61	0.26	22.86	15 55 18.49	4.09	339 8 44.25	35.40	93.8	20 52 31.5	31.1	8.9
17	β Scorpii	9	0 4.51	−0.24	−22.86	15 59 41.41	-4.06	340 28 69.20	58.60	89.0	−19 32 1.7	3.0	+ 8.2
18	Piazzi XVI. 10	9	8 14.88	−0.26	−22.86	16 7 51.76	−4.15	338 52 28.02	18.85	94.9	−21 8 48.7	48.7	+ 7.7
19	Piazzi XVI. 28	9	11 35.63	0.24	22.86	16 11 12.53	4.12	340 9 45.65	35.30	90.2	19 51 26.4	27.4	7.2
20	Piazzi XVI. 39	9	13 43.52	0.24	22.86	16 13 20.42	4.14	340 2 40.25	29.75	90.6	19 58 32.2	33.4	7.0
21	ψ Ophiuchi	9	18 42.24	0.24	22.86	16 18 19.14	4.15	340 12 54.30	44.50	90.0	19 48 17.5	17.9	6.5
22	O. A. 15647	9	21 45.55	0.27	22.86	16 21 22.42	4.22	338 7 39.40	31.58	97.9	21 53 40.2	38.7	6.5
23	B. D. −18° 4287	9	24 21.38	0.22	22.85	16 23 58.31	4.13	341 33 47.88	37.85	85.5	18 27 19.4	20.1	5.7
24	Lal. 30046	9	26 59.64	−0.25	−22.85	16 26 36.54	−4.20	339 28 52.80	42.95	92.7	20 32 21.6	22.1	+ 5.8
25	B. D. −18° 4295	9	30 8.56	−0.22	−22.85	16 29 45.49	−4.15	341 32 66.45	55.75	85.5	−18 28 0.7	2.1	+ 5.1
26	Lal. 30207	9	32 47.25	0.28	22.85	16 32 24.12	4.29	337 19 52.75	42.98	101.1	22 41 30.0	30.4	5.5
27	Bradley 2115	9	36 28.25	0.24	22.85	16 36 5.16	4.21	340 16 68.62	59.92	89.8	19 44 2.8	2.2	4.7
28	15 Ophiuchi	9	39 35.23	0.28	22.85	16 39 12.10	4.32	337 1 27.30	16.52	102.4	22 59 56.6	58.1	4.9
29	24 Ophiuchi	9	51 13.57	0.28	**22.80**	16 50 50.44	4.35	337 1 51.10	41.70	102.4	22 59 32.7	32.8	3.6
30	η Ophiuchi	9	5 5.78	0.19	**22.91**	17 4 42.75	4.16	344 24 53.48	43.22	76.9	15 36 4.8	5.6	1.3
31	36 Ophiuchi	9	9 39.49	−0.33	−**22.86**	17 9 16.32	−4.50	333 34 13.62	4.65	119.0	−26 27 26.7	26.2	+ 2.6
32	ξ Ophiuchi	9	15 28.02	−0.26	−**22.79**	17 15 4.92	−4.35	339 0 55.52	45.52	94.5	−21 0 20.2	20.8	+ 0.9
33	Mayer 701	9	19 10.62	0.26	22.84	17 18 47.52	4.36	338 40 24.30	14.70	95.8	21 20 52.7	52.9	0.5
34	Lal. 31733	9	22 45.79	0.26	22.84	17 22 22.69	4.34	339 8 25.55	16.35	94.0	20 52 49.7	49.5	+ 0.1
35	C² Ophiuchi	9	25 46.34	0.30	**22.76**	17 25 23.20	4.44	336 8 19.28	11.12	106.4	23 53 8.3	7.0	0.0
36	X Sagittarii	9	41 43.74	0.35	**22.82**	17 41 20.56	4.61	332 14 14.90	7.40	126.8	27 47 32.9	31.0	− 1.5
37	Mayer 722	9	50 29.47	0.23	**22.84**	17 50 6.42	4.31	341 13 66.42	57.28	86.7	18 47 1.2	0.9	2.8
38	C. Z. XVIII. 11	9	2 8.67	−0.29	−22.82	18 1 45.56	−4.44	336 54 29.92	19.45	103.1	−23 6 54.0	55.1	− 3.9
39	O. A. 17753	9	5 9.72	−0.28	−22.82	18 4 46.62	−4.42	337 45 54.68	46.25	99.5	−22 15 25.6	24.6	− 4.3
40	μ Sagittarii	9	8 14.42	0.26	22.82	18 7 51.34	4.38	338 56 14.50	6.00	94.9	21 5 1.2	0.2	4.5
41	Lal. 33591	8	12 22.26	0.28	22.82	18 11 59.16	4.42	337 38 42.65	32.12	100.0	22 22 38.1	39.2	5.0
42	Lac. 7686	9	16 26.86	0.28	22.82	18 16 3.76	4.44	337 3 26.25	13.25	102.4	22 57 56.9	60.4	5.4
43	λ Sagittarii	9	22 15.69	−0.32	−**22.89**	18 21 52.55	−4.52	334 32 63.72	54.12	114.1	25 28 31.0	31.2	5.8
44	Bradley 2335	.	.. ..	....	.....	18 33	....	338 53 18.35	8.88	95.1	−21 7 57.3	57.3	− 7.1

Time.			Barom.	Att. Ther.	Ext. Ther.
d	h	m	cm.	°	°
25	16	29	75.51	25.7	25.1
	17	8	75.50	25.3	24.6
26	15	22	75.41	24.5	23.2
	15	54	75.42	24.2	23.1
	16	35	75.42	23.8	22.8
	17	12	75.40	23.7	22.6
	17	49	75.40	23.4	22.2
	18	37	75.40	23.5	22.2

Bisections are made at II and VI, except as noted below.

2, 8. Bisection at II.

Notes.

8. Through clouds; faint.
10. Through clouds; poor.
36–44. Seeing poor.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–10, from stars	+ 16.9	*
11–44, from stars	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
8	+16.7	....
9	16.8	+26.6
10	17.7	25.4
11	16.7	24.7
12	17.1	27.6
13	17.0	25.7
14	16.7	25.2
29	17.0	26.1
30	17.2	27.1
31	[20.0]	28.6
32	17.7	27.4
35	19.1	27.0
36	18.6	25.8
37	18.4	27.2
43	17.8	27.1
44	+19.0	+28.1

1900 JUNE 27. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC. δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0.
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ζ^1 Libræ	9	23 3.88	−0.30	−**22.83**	15 22 40.75	−3.82	343 38	38.32	77.8	−16 22	14.4	+10.9
2	γ Libræ	9	30 22.78	0.27	**22.82**	15 29 59.69	3.81	345 33	15.35	72.6	14 27	32.1	9.7
3	κ Libræ	9	36 38.14	0.36	**22.82**	15 36 14.96	3.96	340 39	35.70	87.2	19 21	26.5	10.4
4	O. A. 15773	9	32 8.62	0.39	22.79	16 31 45.44	4.26	338 9	56.70	96.5	21 51	15.0	5.5
5	Bradley 2115	9	36 28.28	0.35	22.79	16 36 5.14	4.21	340 17	2.40	88.7	19 44	1.5	4.7
6	15 Ophiuchi	9	39 35.26	0.40	22.79	16 39 12.07	4.32	337 1	18.82	101.2	22 59	57.6	4.9
7	24 Ophiuchi	9	51 13.71	0.40	−**22.81**	16 50 50.53	−4.36	337 1	44.00	101.2	−22 59 ...	32.5	+ 3.7
8	η Ophiuchi	9	5 5.78	0.27	−**22.83**	17 4 42.73	−4.16	344 24	45.18	76.0	−15 36	6.2	+ 1.3
9	36 Ophiuchi	9	9 39.56	0.47	**22.79**	17 9 16.32	4.50	333 34	6.95	117.7	26 27	26.1	2.6
10	ξ Ophiuchi	9	15 28.07	0.36	**22.74**	17 15 4.94	4.35	339 0	48.38	93.4	21 0	20.4	+ 1.0
11	C^2 Ophiuchi	9	25 46.54	0.42	**22.82**	17 25 23.36	4.46	336 8	13.95	105.2	23 53	6.7	0.0
12	*X* Sagittarii	9	41 43.80	0.49	**22.73**	17 41 20.56	4.62	332 14	8.32	125.4	27 47	32.6	− 1.4
13	Mayer 722	9	50 29.39	0.32	**22.66**	17 50 6.33	4.31	341 14	0.22	85.8	18 47	1.2	2.9
14	C. Z. XVIII. 11	9	2 8.69	−0.40	−22.73	18 1 45.56	−4.46	336 54	22.22	102.0	−23 6	55.4	− 3.9
15	O. A. 17753	9	5 9.71	−0.38	−22.73	18 4 46.60	−4.43	337 45	49.45	98.5	−22 15	24.6	− 4.3
16	μ Sagittarii	9	8 14.51	0.36	22.73	18 7 51.42	4.40	338 56	9.28	93.9	21 5	0.3	4.5
17	Lal. 33591	9	12 22.30	0.38	22.72	18 11 59.20	4.43	337 38	35.78	99.0	22 22	38.9	5.0
18	Lac. 7686	9	16 26.87	0.39	22.72	18 16 3.76	4.45	337 3	18.85	101.4	22 57	58.3	5.4
19	λ Sagittarii	9	22 15.66	0.44	**22.73**	18 21 52.50	4.53	334 32	58.65	112.9	25 28	30.0	5.8
20	Bradley 2335	9	33 23.10	−0.36	−**22.69**	18 33 0.04	−4.37	338 53	12.55	94.1	−21 7	57.3	− 7.2

1900 JUNE 30. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC. δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900. 0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900. 0.
21	α Ursæ Minoris S. P.	7	23 46.90	−34.37	[−**21.81**]	1 22	....	91 12 11.80	5.40	71.1	+88 46 20.1	22.7	....
22	η Bootis	9	50 19.50	+ 0.25	[**21.57**]	13 49	....	18 54 53.12	48.60	20.1	+18 53 49.9	49.2	....
23	ζ^1 Libræ	9	23 2.47	− 0.20	**21.54**	15 22 40.72	−3.80	343 38	44.58	80.1	−16 22	15.2	+10.9
24	γ Libræ	9	30 21.36	0.17	**21.52**	15 29 59.65	3.79	345 33	21.15	74.7	14 27	33.2	9.6
25	κ Libræ	9	36 36.77	0.23	**21.59**	15 36 15.00	3.95	340 39	43.20	89.7	19 21	26.2	10.4
26	λ Libræ	9	47 57.42	0.24	**21.51**	15 47 35.65	4.02	340 8	57.55	91.6	19 52	13.7	9.5
27	Piazzi XV. 210	9	51 46.76	− 0.25	− 21.52	15 51 24.99	−4.07	338 49	25.20	96.5	−21 11	51.0	+ 9.4
28	Lal. 29094	9	55 40.22	− 0.24	− 21.52	15 55 18.46	−4.08	339 8	44.55	95.3	−20 52	30.4	+ 9.0
29	β Scorpii	9	0 3.01	0.23	21.51	15 59 41.27	4.06	340 29	7.55	90.4	19 32	2.5	8.2
30	Piazzi XVI. 10	9	8 13.52	0.24	21.51	16 7 51.77	4.15	338 52	26.98	96.4	21 8	49.1	7.8
31	Piazzi XVI. 39	9	13 42.12	0.23	21.50	16 13 20.39	4.13	340 2	39.55	92.0	19 58	32.1	7.0
32	ψ Ophiuchi	9	18 40.87	0.22	21.50	16 18 19.15	4.15	340 12 ...	53.25	91.5	19 48	17.9	6.5
33	B. D. −21° 4366	9	23 50.46	0.24	21.49	16 23 28.73	4.22	338 40	20.95	97.3	21 20	56.1	6.3
34	B. D. −18° 4295	9	30 7.13	− 0.20	− 21.48	16 29 45.45	−4.15	341 33	6.08	86.9	−18 28	0.5	+ 5.2
35	O. A. 15797	9	33 11.05	− 0.20	− 21.48	16 32 49.37	−4.17	341 23	31.98	87.5	−18 37	35.2	+ 4.9
36	Bradley 2115	9	36 26.83	0.22	21.48	16 36 5.13	4.21	340 17	10.10	91.3	19 44	0.9	4.8
37	15 Ophiuchi	9	39 33.76	0.25	21.47	16 39 12.04	4.32	337 1	26.78	104.1	22 59	57.0	5.0
38	24 Ophiuchi	9	51 12.12	0.25	**21.37**	16 50 50.41	4.36	337 1	51.32	104.2	22 59	32.6	3.8
39	η Ophiuchi	9	5 4.36	0.16	**21.51**	17 4 42.75	4.17	344 24	51.68	78.2	15 36	6.2	1.2
40	36 Ophiuchi	9	9 38.09	− 0.29	− **21.48**	17 9 16.35	−4.52	333 34	16.72	121.2	−26 27	24.2	+ 2.8

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
27 15 33	75.29	27.3	26.5
16 35	75.26	26.6	25.7
17 55	75.24	25.7	24.5
18 20	75.23	25.5	24.3
30 13 17	75.64	24.5	22.8
15 17	75.70	21.5	20.2
16 3	75.75	20.9	19.9
17 3	75.79	20.0	19.1

Bisections are made at IV, except as noted below.

21. Bisections at c_2 and c_4.

Notes.

3, 7, 20. Clouds.

23–40. Very unsteady; seeing bad.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–20, from stars	....	*
21, 22, from nadir	+15.9	+19.7
23–40, from stars	....	+19.3

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
		″
1	....	+23.2
2	....	25.1
3	....	23.9
7	....	22.8
8	....	24.5
9	....	25.3
10	....	23.6
11	....	23.2
12	....	23.7
13	....	23.8
19	....	21.7
20	....	23.8
23	....	19.2
24	....	21.5
25	....	18.9
26	....	17.9
38	....	18.4
39	....	20.3
40	....	+18.9

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ξ Ophiuchi	9	15 26.63	-0.22	-**21.43**	17 15 4.96	-4.36	339 0	56.10	96.2	−21 0	19.8	+1.0
2	Mayer 701	9	19 9.21	0.23	21.44	17 18 47.54	4.38	338 40	24.52	97.6	21 20	52.8	0.6
3	Lal. 31733	9	22 44.31	0.22	21.44	17 22 22.65	4.37	339 8	27.32	95.8	20 52	48.2	0.2
4	C^2 Ophiuchi	9	25 45.04	0.26	**21.47**	17 45 23.34	4.47	336 8	21.40	108.4	23 53	6.7	+0.2
5	χ Sagittarii	9	41 42.31	0.30	**21.41**	17 41 20.58	- 4.64	332 14	16.32	129.3	-27 47	32.7	−1.2
6	Mayer 722	9	50 28.05	0.19	- **21.43**	17 50 6.44	−4.34	341 14	6.52	88.5	−18 47	1.7	−2.8
7	C. Z. XVIII. 11	9	2 7.22	0.24	21.41	18 1 45.57	4.48	336 54	29.62	105.2	23 6	55.3	3.8
8	O. A. 17753	9	5 8.29	0.23	21.41	18 4 46.65	4.46	337 45	55.75	101.5	22 15	25.4	4.2
9	μ Sagittarii	8	8 13.03	0.22	21.40	18 7 51.41	4.43	338 56	16.92	96.8	21 4	59.6	4.5
10	Lal. 33591	9	12 20.87	−0.23	21.40	18 11 59.24	4.46	337 38	41.65	102.0	22 22	40.1	−5.0
11	Lac. 7686	9	16 25.36	−0.24	-21.39	18 16 3.73	-4.48	337 3	26.52	104.5	−22 57	57.7	−5.4
12	λ Sagittarii	9	22 14.17	0.26	**21.39**	18 21 52.52	4.56	334 33	4.72	116.4	25 28	31.4	5.8
13	Bradley 2335	9	33 21.67	−0.21	**21.37**	18 33 0.09	-4.41	338 53	19.80	97.0	−21 7	56.9	-7.1
14	β Andromedæ	9	4 31.52	+0.30	[**21.28**]	1 4	....	35 5 16.12	13.12	3.8	+35 5 28.9	29.0	...
15	α Ursæ Minoris	9	22 52.71	19.71	[**21.26**]	1 22	....	88 44 57.98	52.20	66.8	88 46 20.9	18.6	...
16	γ Andromedæ	8	58 8.92	+0.38	[−**21.23**]	1 57	....	41 50 40.62	36.98	2.9	+41 50 60.1	59.6	...

1900 JULY 1. CLAMP EAST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

17	ζ^1 Libræ	9	23 2.05	−0.13	**−21.19**	15 22 40.76	-3.80	343 38	45.00	79.9	−16 22	15.1	+10.8
18	γ Libræ	9	30 20.92	0.11	**21.14**	15 29 59.65	3.79	345 33	22.35	74.5	14 27	32.4	9.6
19	κ Libræ	9	36 36.25	0.16	**21.15**	15 36 14.93	3.94	340 39	43.60	89.5	19 21	26.1	10.4
20	λ Libræ	9	47 56.99	0.17	**21.16**	15 47 35.66	4.01	340 8	57.75	91.3	19 52	13.8	9.5
21	Lal. 29094	9	55 39.78	0.18	21.15	15 55 18.45	4.08	339 8	44.45	95.0	20 52	30.8	9.0
22	β Scorpii	9	0 2.67	0.16	21.15	15 59 41.36	4.06	340 29	7.65	90.1	19 32	2.6	8.3
23	ω^2 Scorpii	9	1 57.80	−0.18	21.15	16 1 36.47	−4.10	339 25	11 45	93.9	−20 36	2.7	+ 8.3
24	Piazzi XVI. 10	9	8 13.10	−0.18	21.15	16 7 51.77	-4.14	338 52	28.12	96.0	−21 8	48.1	+ 7.8
25	Piazzi XVI. 39	9	13 41.77	0.17	21.14	16 13 20.46	4.13	340 2	38.88	91.7	19 58	33.0	7.0
26	B. D. −19° 4368	9	20 1.32	0.16	21.14	16 19 40.02	4.15	340 24	40.02	90.4	19 36	30.6	6.4
27	O. A. 15647	9	21 43.69	0.19	21.14	16 21 22.36	4.22	338 7	39.92	99.0	21 53	39.3	6.6
28	B. D. −18° 4287	9	24 19.48	0.15	21.14	16 23 58.19	4.13	341 33	46.30	86.5	18 27	20.4	5.7
29	Lal. 30046	8	26 57.82	0.17	21.14	16 26 36.51	4.20	339 28	52.85	93.7	20 32	21.1	5.8
30	B. D. −18° 4295	9	30 6.74	−0.15	-21.14	16 29 45.45	-4.15	341 33	5.12	86.5	18 28	1.6	+ 5.2
31	O. A. 15797	9	33 10.71	−0.15	21.14	16 32 49.42	-4.17	341 23	31.88	87.0	−18 37	35.3	+ 4.9
32	Bradley 2115	9	36 26.44	0.16	21.13	16 36 5.15	4.21	340 17	9.50	90.8	19 44	1.5	4.8
33	15 Ophiuchi	9	39 33.43	0.20	21.13	16 39 12.10	4.32	337 1	26.72	103.7	22 59	57.2	5.0
34	24 Ophiuchi	9	51 11.82	0.20	**21.12**	16 50 50.49	4.36	337 1	50.12	103.6	22 59	33.7	3.8
35	η Ophiuchi	9	5 3.98	0.12	**21.16**	17 4 42.74	4.18	344 24	51.28	77.8	15 36	6.7	1.1
36	36 Ophiuchi	9	9 37.70	0.24	**21.14**	17 9 16.35	4.52	333 34	16.02	120.5	26 27	24.7	2.8
37	ξ Ophiuchi	9	15 26.24	0.18	**21.07**	17 15 4.96	4.37	339 0	55.18	95.7	−21 0	20.7	+ 1.0
38	Mayer 701	6	19 8.72	0.18	-21.09	17 18 47.45	−4.38	338 40	24.40	97.0	21 20	52.8	+ 0.6
39	Lal. 31733	9	22 43.98	0.18	21.09	17 22 22.71	4.37	339 8	26.82	95.3	20 52	48.7	0.2
40	C^2 Ophiuchi	9	25 44.54	0.21	**21.02**	17 25 23.25	4.47	336 8	21.20	107.8	23 53	6.8	+ 0.2
41	χ Sagittarii	9	41 41.99	0.26	**21.13**	17 41 20.68	4.64	332 14	16.62	128.6	27 47	32.2	- 1.2
42	Mayer 722	9	50 27.61	0.16	**21.01**	17 50 6.40	4.35	341 14	8.00	88.0	18 47	0.2	2.8
43	C. Z. XVIII. 11	9	2 6.88	0.20	21.05	18 1 45.63	4.49	336 54	29.48	104.6	23 6	55.3	3.8
44	O. A. 17753	9	5 7.95	−0.19	21.05	18 4 46.71	-4.46	337 45	57.15	101.0	−22 15	24.0	− 4.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
30 17 54	75.78	19.0	18.0
18 32	75.77	18.5	18.0
1 17	75.92	16.7	16.9
1 15 21	75.98	22.5	21.9
16 37	76.00	22.0	21.8
17 13	76.02	21.6	21.4
17 55	76.05	21.0	20.4

Bisections are made at IV, except as noted below.

15. Bisections at c_1 and c_4.

Notes.

15. Seeing unusually good

41, 42. Very unsteady.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–13, from stars.	....	+ 19.3
14–16, from nadir.	15.6	+ 18.7
17–44, from stars.	....	+ 18.8

Eq. Pt. Cor. from stars.

No.	A.	B.
		″
1	....	+18.7
4	....	18.8
5	....	19.4
6	....	20.1
12	....	19.1
13	....	19.4
17	....	18.7
18	....	20.2
19	....	18.3
20	....	17.5
34	....	19.0
35	....	20.4
36	....	18.9
37	....	19.1
40	....	18.4
41	....	18.4
42	....	+18.1

No.	Name.	Thds.	Mean Thread.	$c_0'\sec\delta + n\tan\delta$.	ΔT : m.	Apparent R. A.	Red. to 1900.0	Circle Reading. A.	Circle Reading. B.	Refr.	Apparent Decl. A.	Apparent Decl. B.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	μ Sagittarii	9	8 12.67	−0.18	−21.05	18 7 51.44	−4.43	338 56	16.90	96.3	−21 4	59.6	−4.5
2	Lal. 33591	9	12 20.45	0.19	21.05	18 11 59.21	4.47	337 38	42.80	101.5	22 22	38.9	4.9
3	Lac. 7686	9	16 25.04	0.20	21.05	18 16 3.79	4.49	337 3	26.40	104.0	22 57 ...	57.8	5.4
4	λ Sagittarii	6	22 13.82	0.23	21.06	18 21 52.54	4.57	334 33	4.98	115.8	25 28	31.0	5.8
5	Bradley 2335	9	33 21.32	−0.18	−21.04	18 33 0.09	−4.42	338 53	19.70	96.5	−21 7	57.0	−7.1

1900 JULY 2. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	$c_0'\sec\delta + n\tan\delta$.	ΔT : m.	Apparent R. A.	Red. to 1900.0	Circle Reading. A.	Circle Reading. B.	Refr.	Apparent Decl. A.	Apparent Decl. B.	Red. to 1900.0
6	ζ¹ Libræ	9	23 1.81	0.13	20.96	15 22 40.72	3.79	343 38 50.45	45.05	80.1	−16 22 15.0	14.3	+10.8
7	γ Libræ	9	30 20.69	0.11	20.92	15 29 59.62	3.78	345 33 28.78	21.10	74.8	14 27 31.3	33.4	9.5
8	κ Libræ	9	36 36.09	0.16	20.99	15 36 14.98	3.94	340 39 47.85	42.42	89.8	19 21 27.2	27.0	10.3
9	λ Libræ	.	.. ..	....	.....	15 47	....	340 8 62.45	58.72	91.6	19 52 14.3	12.5	9.5
10	Piazzi XV. 210	.	.. ..	....	.....	15 51	....	338 49 30.08	25.25	96.6	21 11 51.7	50.9	9.4
11	Lal. 29094	.	.. ..	....	.....	15 55	....	339 8 48.32	44.25	95.4	20 52 32.2	30.7	8.9
12	β Scorpii	.	.. ..	....	.....	15 59	....	340 29 13.20	6.72	90.5	−19 32 2.3	3.3	+ 8.3
13	Piazzi XVI. 10	9	8 12.83	−0.17	−20.94	16 7 51.72	−4.14	338 52 33.15	28.38	96.5	−21 8 48.4	47.6	+ 7.8
14	Piazzi XVI. 39	9	13 41.47	0.16	20.93	16 13 20.38	4.13	340 2 44.65	38.90	92.1	19 58 32.5	32.7	7.0
15	B. D. −19° 4368	9	20 1.04	0.16	20.93	16 19 39.95	4.14	340 24 45.42	39.58	90.8	19 36 30.3	30.7	6.3
16	O. A. 15647	9	21 43.51	0.18	20.93	16 21 22.40	4.22	338 7 43.92	39.40	99.5	21 53 40.5	39.5	6.6
17	B. D. −18° 4287	8	24 19.31	0.15	20.93	16 23 58.23	4.13	341 33 52.08	45.90	86.9	18 27 19.8	20.4	5.7
18	Lal. 30046	9	26 57.58	−0.17	−20.93	16 26 36.48	−4.20	339 28 57.25	52.95	94.3	−20 32 22.0	20.8	+ 5.8
19	B. D. −18° 4295	9	30 6.50	−0.15	−20.93	16 29 45.42	−4.15	341 33 10.72	4.55	86.9	−18 28 1.1	1.8	+ 5.1
20	O. A. 15797	9	33 10.41	0.15	20.92	16 32 49.34	4.17	341 23 37.98	31.32	87.5	18 37 34.5	35.6	4.9
21	24 Ophiuchi	9	51 11.57	0.19	20.87	16 50 50.47	4.37	337 1 56.40	50.62	104.2	22 59 32.6	32.0	3.8
22	η Ophiuchi	9	5 3.76	0.12	20.94	17 4 42.73	4.18	344 24 57.60	51.65	78.2	15 36 5.4	5.9	1.1
23	36 Ophiuchi	9	9 37.50	0.23	20.95	17 9 16.36	4.52	333 34 21.18	14.92	121.2	26 27 24.7	25.6	2.9
24	ξ Ophiuchi	9	15 26.03	−0.17	20.87	17 15 4.95	−4.37	339 0 60.98	55.88	96.2	−21 0 19.9	19.6	+ 1.0
25	Mayer 701	.	.. ..	....	.....	17 18	....	338 40 28.38	23.78	97.5	−21 20 53.8	53.0	+ 0.6
26	Lal. 31733	9	22 43.76	−0.17	−20.90	17 22 22.69	−4.38	339 8 30.35	26.35	95.7	20 52 50.0	48.6	0.2
27	C² Ophiuchi	9	25 44.43	0.20	20.91	17 25 23.33	4.48	336 8 25.18	20.90	108.3	23 53 7.6	6.6	+ 0.2
28	X Sagittarii	9	41 41.76	0.24	20.91	17 41 20.62	4.65	332 14 20.95	15.38	129.0	27 47 32.5	32.8	− 1.2
29	Mayer 722	9	50 27.47	0.15	20.88	17 50 6.43	4.35	341 14 11.22	5.90	88.2	18 47 1.4	1.5	2.9
30	C. Z. XVIII. 11	8	2 6.65	−0.19	−20.88	18 1 45.58	−4.50	336 54 34.38	28.25	104.9	−23 6 54.8	55.8	− 3.8
31	O. A. 17753	8	5 7.75	−0.18	−20.88	18 4 46.69	4.47	337 45 59.72	55.02	101.3	−22 15 25.9	25.4	− 4.2
32	μ Sagittarii	8	8 12.45	0.17	20.88	18 7 51.40	4.44	338 56 18.68	15.28	96.6	21 5 2.3	0.4	4.5
33	Lal. 33591	9	12 20.21	0.18	20.87	18 11 59.16	4.48	337 38 44.95	42.05	101.8	22 22 41.2	38.9	4.9
34	Lac. 7686	9	16 24.84	0.19	20.87	18 16 3.78	4.50	337 3 30.00	24.95	104.3	22 57 58.5	58.5	5.3
35	λ Sagittarii	9	22 13.67	0.22	20.91	18 21 52.59	4.58	334 33 9.58	4.05	116.2	25 28 30.8	31.2	5.8
36	Bradley 2335	9	33 21.09	−0.17	−20.81	18 33 0.06	−4.43	338 53 23.40	18.62	96.8	−21 7 57.5	57.2	− 7.1

1900 JULY 7. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

No.	Name.	Thds.	Mean Thread.	$c_0'\sec\delta + n\tan\delta$.	ΔT : m.	Apparent R. A.	Red. to 1900.0	Circle Reading. A.	Circle Reading. B.	Refr.	Apparent Decl. A.	Apparent Decl. B.	Red. to 1900.0
37	ζ¹ Libræ	9	22 59.79	−0.09	−19.01	15 22 40.66	−3.76	343 38	56.18	77.8	−16 22	13.7	+10.5
38	γ Libræ	9	30 18.71	0.08	19.00	15 29 59.59	3.75	345 33	31.58	72.5	14 27	33.0	9.3
39	κ Libræ	9	36 34.11	0.10	19.10	15 36 14.98	3.91	340 39	53.60	87.1	19 21	25.5	10.1
40	B. D.—18° 4295	9	30 4.52	0.09	18.97	16 29 45.46	4.14	341 33	16.15	84.3	18 28	0.2	4.9
41	O. A. 15797	8	33 8.43	−0.09	−18.97	16 32 49.37	−4.16	341 23	42.80	84.8	−18 37	34.0	+ 4.6

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
1 18 31	76.02	20.5	20.3
2 15 21	76.14	22.9	21.6
15 58	76.14	22.4	21.1
16 48	76.14	21.8	20.7
17 17	76.15	21.5	20.3
17 55	76.15	21.3	20.1
18 35	76.15	21.0	19.8
7 15 20	75.37	29.7	27.0
16 36	75.30	27.6	26.5

Bisections are made at II and VI, except as noted below.

1–5.	Bisection at IV.
11, 17, 19.	Bisections at III and VI.
37–41.	Bisection at VI.

Note.

14. First bisection doubtful.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–5, from stars	....	+18.8
6–36, from stars	*	*
37–41, from stars	....	+ 6.7

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
4	....	+18.2
5	....	19.0
6	+13.5	18.6
7	14.2	21.6
8	14.5	19.6
9	13.1	16.5
21	13.3	18.8
22	14.6	20.2
23	14.3	20.3
24	13.9	18.6
27	14.9	18.9
28	14.4	19.7
29	15.2	20.2
35	14.0	19.2
36	+15.6	20.1
37	....	5.5
38	....	9.0
39	....	+ 5.9

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n\tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	24 Ophiuchi	9	51 9.55	−0.11	−**18.94**	16 50 50.49	−4.36	337 1 59.32	60.25	101.0	−22 59 33.9	32.8	+ 3.7
2	η Ophiuchi	9	5 1.65	0.06	**18.89**	17 4 42.66	4.18	344 25 3.52	3.28	75.8	15 36 4.6	4.6	1.0
3	36 Ophiuchi	8	9 35.37	0.12	**18.93**	17 9 16.32	4.52	333 34 25.08	24.18	117.5	26 27 24.6	25.3	2.9
4	ξ Ophiuchi	9	15 24.03	0.03	**18.94**	17 15 5.02	4.38	339 1 4.95	4.00	93.2	21 0 20.5	21.2	0.9
5	Lal. 31552	9	17 24.39	−0.08	−18.92	17 17 5.39	−4.35	339 54 14.82	15.38	90.0	−20 7 7.4	6.7	+ 0.4
6	Mayer 701	8	19 6.55	−0.09	−18.92	17 18 47.54	−4.39	338 40 34.30	33.92	94.5	−21 20 52.5	52.6	+ 0.4
7	Lal. 31733	9	22 41.75	0.09	18.91	17 22 22.75	4.39	339 8 34.55	.....	92.8	20 52 50.5	.....	0.0
8	O. A. 16844	9	24 13.04	0.08	18.91	17 23 54.05	4.34	340 37 46.45	46.18	87.5	19 23 33.3	33.4	− 0.4
9	*X* Sagittarii	9	41 39.66	−0.12	−**18.91**	17 41 20.65	−4.67	332 14 24.95	25.08	125.1	−27 47 32.3	32.0	− 1.2
	UPDEGRAFF, OBSERVER.				1900 JULY 8.			CLAMP EAST.			HAMMOND, ASSISTANT.		
10	γ Libræ		.. ..	.....	.....	15 29	.....	345 33 31.20	32.80	71.9	−14 27 31.5	32.2	+ 9.3
11	κ Libræ	9	36 33.23	−0.04	−**18.29**	15 36 14.88	−3.90	340 39 51.75	53.48	86.4	19 21 25.3	25.9	10.1
12	λ Libræ	8	47 53.99	0.04	**18.32**	15 47 35.65	3.98	340 9 5.20	8.18	88.2	19 52 13.7	13.1	9.2
13	Piazzi XV. 210	9	51 43.22	0.04	18.29	15 51 24.89	4.04	338 49 33.95	35.35	93.0	21 11 49.8	50.7	9.2
14	ω¹ Scorpii	9	1 19.73	0.04	18.28	16 1 1.41	4.06	339 37 19.38	21.75	90.1	20 24 1.5	1.4	8.1
15	Piazzi XVI. 10	9	8 10.02	−0.04	−18.27	16 7 51.71	−4.12	338 52 34.95	.....	92.9	−21 8 48.7	....	+ 7.5
16	Piazzi XVI. 17	9	9 19.76	−0.04	−18.27	16 9 1.45	−4.16	337 53 44.00	45.68	96.7	−22 7 43.4	44.0	+ 7.7
17	O. A. 15541	9	15 10.32	0.04	18.26	16 14 52.02	4.17	338 25 17.60	21.08	94.6	21 36 7.7	6.5	7.0
18	B. D.−19°4368	9	19 58.22	0.03	18.26	16 19 39.93	4.13	340 24 48.45	50.15	87.4	19 36 29.7	30.3	6.1
19	O. A. 15647	9	21 40.61	0.03	18.26	16 21 22.32	4.20	338 7 46.18	49.68	95.8	21 53 40.3	39.1	6.4
20	B. D.−18°4287	9	24 16.46	0.03	18.25	16 23 58.18	4.12	341 33 56.50	56.48	83.7	18 27 18.0	20.3	5.4
21	Lal. 30046	9	26 54.68	−0.03	−18.25	16 26 36.40	−4.19	339 29 2.15	2.42	90.7	−20 32 19.3	21.3	+ 5.6
22	B. D.−18°4295	9	30 3.67	−0.02	−18.25	16 29 45.40	−4.14	341 33 14.00	16.05	83.7	−18 28 0.5	0.7	+ 4.9
23	O. A. 15773	8	32 3.65	0.03	18.24	16 31 45.38	4.25	338 10 11.70	12.60	95.7	21 51 14.7	16.1	5.4
24	15 Ophiuchi	9	39 30.28	0.03	18.23	16 39 12.02	4.32	337 1 33.70	36.42	100.3	22 59 57.3	56.9	4.9
25	24 Ophiuchi	9	51 8.73	0.02	**18.21**	16 50 50.49	4.36	337 1 57.85	59.85	100.3	22 59 33.2	33.5	3.7
26	η Ophiuchi	9	5 0.91	0.01	**18.20**	17 4 42.70	4.18	344 25 1.60	3.80	75.4	15 36 4.6	4.7	0.9
27	36 Ophiuchi	7	9 34.58	0.02	−**18.23**	17 9 16.36	−4.53	333 34 22.38	25.32	116.7	−26 27 25.0	24.4	+ 2.9
28	ξ Ophiuchi	9	15 23.19	−0.02	−**18.17**	17 15 4.99	−4.38	339 1 2.38	5.48	92.7	−21 0 21.1	20.2	+ 0.8
29	Lal. 31552	9	17 23.51	0.01	18.18	17 17 5.32	4.35	339 54 14.02	15.78	89.5	20 7 6.2	6.8	0.4
30	Mayer 701	9	19 5.66	0.01	18.18	17 18 47.47	4.39	338 40 31.55	34.30	94.0	21 20 53.2	52.7	+ 0.4
31	O. A. 16844	9	24 12.19	0.01	18.17	17 23 54.01	4.35	340 37 45.12	48.05	87.0	19 23 32.6	32.0	− 0.4
32	*X* Sagittarii	9	41 38.78	0.01	**18.14**	17 41 20.63	4.67	332 14 21.85	24.60	124.5	27 47 33.3	32.9	1.1
33	Mayer 722	9	50 24.58	− 0.01	−**18.10**	17 50 6.45	−4.38	341 14 14.80	16.55	85.2	−18 47 1.1	1.7	− 3.1
34	Mayer 734	9	1 34.14	0.00	−18.10	18 1 16.04	−4.48	338 34 14.15	17.22	94.6	−21 27 11.2	10.4	− 4.0
35	ι Sagittarii	9	5 59.89	0.00	18.09	18 5 41.80	4.56	336 18 2.25	25.05	103.8	23 43 12.3	11.7	4.3
36	14 Sagittarii	9	8 38.07	0.00	18.09	18 8 19.98	4.50	338 17 8.12	12.08	95.7	21 44 18.3	16.6	4.8
37	Lal. 33516	9	10 50.29	0.00	18.08	18 10 32.21	4.57	336 5 38.02	.....	104.8	23 55 57.5	....	4.8
38	λ Sagittarii	7	22 10.67	0.00	−**18.08**	18 21 52.61	−4.63	334 33 11.98	.....	112.1	−25 28 30.8	....	− 5.8
	UPDEGRAFF, OBSERVER.				1900 JULY 9.			CLAMP EAST.			HAMMOND, ASSISTANT.		
39	ζ¹ Libræ	9	22 57.86	+0.11	−**17.29**	15 22 40.67	−3.75	343 38 54.72	59.00	79.6	−16 22 14.6	14.9	+10.4

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
7 17 12	75.27	27.0	25.7
18 0	75.26	26.4	25.2
8 15 32	74.86	29.9	27.5
16 3	74.85	28.5	26.8
16 35	74.86	27.8	26.7
17 9	74.855	27.0	26.0
17 44	74.85	26.2	25.3
18 34	74.84	25.8	25.0
9 15 20	75.39	22.9	20.6

Bisections are made at II and VI, except as noted below.

3, 11, 23, 27.	Bisections at IV and VI.
6, 29.	Bisections at III and VI.
7, 15, 38.	Bisection at II.
37.	Bisection at III.

Notes.

10–38.	Clouds; poor observations.
37.	Bisection poor.
39.	Through clouds.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–9, from stars	+6.8	+6.7
10–38, from stars	+8.3	+5.7
39, from stars	+9.4	+4.5

Eq Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+7.3	+6.1
2	6.4	6.3
3	6.7	7.3
4	7.0	7.6
9	6.5	6.1
10	9.1	7.2
11	7.3	5.3
12	7.2	4.0
25	8.1	5.8
26	8.0	5.5
27	8.6	5.4
28	9.2	5.7
32	8.9	5.9
33	8.8	6.8
38	7.5	...
39	+9.2	+4.6

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T + m$.	APPARENT. R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	γ Libræ	9	30 16.81	+0.09	**−17.28**	15 29 59.61	−3.74	345 33 32.55	35.20	74.3	−14 27 31.4	33.4	+ 9.3
2	κ Libræ	9	36 32.06	0.13	**17.29**	15 36 14.90	3.90	340 39 53.00	56.98	89.2	19 21 25.8	26.5	10.1
3	λ Libræ	9	47 52.79	0.14	**17.30**	15 47 35.65	3.98	340 9 7.62	11.82	91.1	19 52 13.1	13.5	9.2
4	Piazzi XV. 210	9	51 42.04	0.15	17.27	15 51 24.92	4.03	338 49 34.52	39.75	96.1	21 11 51.2	50.6	9.2
5	ω¹ Scorpii	9	1 18.54	0.15	17.27	16 1 1.42	4.06	339 37 20.25	26.90	93.1	20 24 2.5	0.4	8.0
6	Piazzi XVI. 17	7	9 18.69	+0.16	−17.26	16 9 1.59	−4.15	337 53 45.00	51.00	99.8	−22 7 44.4	43.3	+ 7.7
7	ψ Ophiuchi	7	18 36.23	+0.15	−17.25	16 18 19.13	−4.13	340 13 3.55	7.22	91.1	19 48 17.2	18.1	+ 6.2
8	O. A. 15647	9	21 39.46	0.17	17.25	16 21 22.38	4.20	338 7 49.98	53.68	99.0	21 53 38.6	39.5	6.4
9	B. D.−18° 4287	9	24 15.35	0.14	17.24	16 23 58.25	4.11	341 33 56.90	61.55	86.5	18 27 19.3	19.2	5.4
10	O. A. 15797	9	33 6.51	0.14	17.24	16 32 49.41	4.16	341 23 42.52	47.18	87.1	18 37 34.2	34.1	4.6
11	Bradley 2115	9	36 22.20	0.15	17.23	16 36 5.12	4.20	340 17 18.22	23.98	90.9	19 44 2.3	1.1	4.5
12	ξ Ophiuchi	9	15 22.07	+0.18	**17.25**	17 15 5.05	−4.38	339 1 4.85	10.42	95.8	−21 0 20.6	19.6	+ 0.8
13	Lal. 31552	9	17 22.43	+0.17	−17.20	17 17 5.40	−4.35	339 54 16.02	20.72	92.5	20 7 6.1	6.0	+ 0.4
14	O. A. 16844	9	24 11.03	0.16	17.19	17 23 54.00	4.35	340 37 46.22	52.40	89.9	19 23 33.3	31.7	− 0.4
15	X Sagittarii	9	41 37.53	0.26	**17.15**	17 41 20.62	4.68	332 14 25.25	30.62	128.5	27 47 32.8	32.0	1.1
16	Mayer 722	9	50 23.45	0.17	**17.14**	17 50 6.46	4.39	341 14 16.80	21.25	87.9	18 47 0.8	0.9	3.2
17	Mayer 734	9	1 32.88	+0.20	−17.15	18 1 15.93	−4.49	338 34 16.82	22.30	97.7	−21 27 10.5	9.6	− 4.1
18	ι Sagittarii	9	5 58.73	+0.22	−17.14	18 5 41.81	−4.57	336 18 23.72	30.00	107.3	−23 43 13.2	11.5	− 4.3
19	14 Sagittarii	9	8 36.91	0.20	17.14	18 8 19.97	4.50	338 17 9.22	16.30	98.9	21 44 19.3	16.8	4.8
20	Lal. 33516	9	10 49.21	0.23	17.14	18 10 32.30	4.58	336 5 40.58	46.62	108.3	23 55 57.3	55.9	4.8
21	λ Sagittarii	9	22 9.49	0.25	**17.14**	18 21 52.62	4.64	334 33 14.78	19.02	115.9	25 28 30.7	31.1	5.8
22	Bradley 2335	9	33 17.06	+0.20	**−17.09**	18 33 0.15	−4.49	338 53 28.38	34.68	96.7	−21 7 58.0	56.2	− 7.4

1900 JULY 10. CLAMP EAST.

UPDEGRAFF, OBSERVER. HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T + m$.	APPARENT. R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
23	ζ¹ Libræ	9	22 57.12	+0.20	**−16.65**	15 22 40.63	−3.74	343 38 52.58	58.52	79.2	−16 22 15.8	14.3	+ 10.4
24	γ Libræ	9	30 16.10	0.18	**16.67**	15 29 59.59	3.73	345 33 32.08	35.55	73.9	14 27 30.9	32.0	9.2
25	κ Libræ	9	36 31.36	0.24	**16.71**	15 36 14.92	3.89	340 39 51.78	56.40	88.8	19 21 26.1	26.0	10.0
26	λ Libræ	9	47 52.09	0.24	**16.71**	15 47 35.65	3.97	340 9 6.05	10.68	90.7	19 52 13.6	13.7	9.2
27	ω¹ Scorpii	9	1 17.81	0.25	16.67	16 1 1.39	4.06	339 37 19.70	25.12	92.7	20 24 1.8	1.2	8.0
28	Piazzi XVI. 17	9	9 17.93	0.27	16.66	16 9 1.54	4.15	337 53 43.70	48.75	99.4	22 7 44.4	44.3	7.7
29	O. A. 15541	9	15 8.47	+0.27	−16.66	16 14 52.08	−4.16	338 25 17.35	23.75	97.3	−21 36 8.6	7.2	− 7.0
30	B. D.−19° 4368	9	19 56.40	0.24	−16.66	16 19 39.98	−4.12	340 21 48.00	53.28	90.0	−19 36 30.6	30.3	+ 6.1
31	O. A. 15647	9	21 38.76	0.27	16.66	16 21 22.37	4.20	338 7 46.72	52.88	98.5	21 53 40.4	39.2	6.4
32	B. D.−18° 4287	9	24 14.66	0.23	16.65	16 23 58.24	4.11	341 33 55.30	60.10	86.1	18 27 19.5	19.6	5.4
33	Lal. 30046	9	26 52.86	0.26	16.65	16 26 36.47	4.18	339 29 0.62	5.40	93.4	20 32 21.4	21.6	5.6
34	O. A. 15773	9	32 1.81	0.27	16.65	16 31 45.43	4.24	338 10 11.88	17.02	98.4	21 51 15.1	15.0	5.4
35	O. A. 15797	4	33 5.77	0.23	16.65	16 32 49.35	4.15	341 23	44.32	86.7	18 37	36.0	4.5
36	24 Ophiuchi	9	51 6.79	+0.29	**16.58**	16 50 50.44	−4.36	337 1 58.50	64.45	103.2	−22 59 33.1	32.4	+ 3.6
37	η Ophiuchi	9	4 59.20	+0.20	**−16.70**	17 4 42.77	−4.18	344 25 1.02	6.22	77.5	−15 36 4.7	4.9	+ 0.9
38	36 Ophiuchi	9	9 32.63	0.34	**16.64**	17 9 16.35	4.53	333 34 23.75	28.70	120.1	26 27 24.6	25.0	2.9
39	ξ Ophiuchi	9	15 21.32	0.27	**16.59**	17 15 4.98	4.38	339 1 2.72	9.28	95.3	21 0 20.7	19.6	0.8
40	Lal. 31552	9	17 21.71	0.26	16.61	17 17 5.36	4.35	339 54 13.98	19.10	92.1	20 7 6.3	6.6	+ 0.4
41	O. A. 16844	9	24 10.38	0.25	16.60	17 23 54.03	4.35	340 37 41.48	50.98	89.5	19 23 33.2	32.2	− 0.5
42	X Sagittarii	9	41 36.87	0.37	**16.60**	17 41 20.66	4.68	332 14 22.78	28.80	128.1	27 47 33.2	32.9	1.1
43	Mayer 722	9	50 22.78	+0.25	**16.55**	17 50 6.46	−4.39	341 14 15.00	20.10	87.6	−18 47 0.4	1.1	− 3.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
9 16 4	75.45	21.5	20.0
16 40	75.46	21.0	19.5
17 24	75.48	20.2	18.9
17 53	75.47	19.8	18.6
18 35	75.48	19.4	17.8
10 15 19	75.79	25.6	23.6
16 3	75.82	24.1	22.6
16 54	75.80	23.0	21.8
17 46	75.80	22.0	20.9

Bisections are made at II and VI, except as noted below.

6. Bisection at IV.
7. Bisections at IV and VI.
35. Bisection at VI.

Notes.

1–22. Through clouds.
6. Poor observation.
8. Declination poor.
23–43. Seeing good.
35. Hurried.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–22, from stars	9.4	+4.5
23–43, from stars	*	+5.1

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+10.1	+7.2
2	8.9	4.7
3	7.7	3.2
12	9.8	3.9
15	9.5	3.8
16	9.7	4.9
21	8.5	4.0
22	10.9	4.2
23	10.9	4.6
24	10.3	6.5
25	9.9	4.9
26	8.9	4.0
36	10.4	4.2
37	10.6	5.1
38	10.7	5.4
39	11.4	4.5
42	11.6	5.3
43	+11.1	+5.7

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec \delta + n \tan \delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Mayer 734	9	1 32.30	+0.28	−16.57	18 1 16.01	−4.49	338 34 14.42	19.75	97.3	−21 27 10.6	11.2	−4.1
2	1 Sagittarii	9	5 58.07	0.32	16.57	18 5 41.82	4.57	336 18 21.38	27.58	106.9	23 43 13.2	12.9	4.3
3	14 Sagittarii	9	8 36.29	0.29	16.56	18 8 20.02	4.51	338 17 7.45	13.92	98.5	21 44 18.8	18.2	4.8
4	Lal. 33516	9	10 48.49	0.32	16.56	18 10 32.25	4.58	336 5 37.82	44.68	107.8	23 55 57.7	56.7	4.8
5	λ Sagittarii	9	22 8.87	0.35	**16.61**	18 21 52.66	4.65	334 33 12.40	17.48	115.3	25 28 30.5	31.4	5.8
6	Bradley 2335	9	33 16.39	+0.29	**−16.50**	18 33 0.13	−4.50	338 53 26.15	32.72	96.2	−21 7 57.6	57.1	−7.4

1900 JULY 11.

CLAMP EAST.

UPDEGRAFF, OBSERVER.

HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec \delta + n \tan \delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
7	ζ^1 Libræ	9	22 56.80	+0.17	**−16.31**	15 22 40.64	−3.73	343 38 51.05	56.80	78.3	−16 22 14.9	13.9	+10.4
8	γ Libræ	9	30 15.74	0.15	**16.29**	15 29 59.57	3.72	345 33 28.62	33.25	73.0	14 27 32.0	32.2	9.2
9	κ Libræ	9	36 31.03	0.20	**16.35**	15 36 14.91	3.88	340 39 48.62	54.20	87.7	19 21 26.6	25.9	10.0
10	λ Libræ	9	47 51.74	0.21	**16.34**	15 47 35.63	3.96	340 9 4.02	8.15	89.6	19 52 13.0	13.9	9.2
11	ω^1 Scorpii	9	1 17.53	0.22	16.31	16 1 1.44	4.04	339 37 16.35	22.72	91.6	20 24 2.5	1.3	8.0
12	Piazzi XVI. 17	9	9 17.61	0.24	16.30	16 9 1.55	4.14	337 53 41.00	46.50	98.2	22 7 44.3	44.1	7.7
13	O. A. 15541	9	15 8.14	+0.23	−16.30	16 14 52.07	−4.16	338 25 15.12	22.10	96.2	−21 36 8.1	6.5	+7.0
14	B. D. —19° 4368	9	19 56.11	+0.21	−16.30	16 19 40.02	−4.12	340 24 46.05	51.52	88.9	−19 36 29.9	29.8	+6.0
15	B. D. −21° 4366	9	23 44.78	0.23	16.30	16 23 28.71	4.19	338 40 25.52	31.05	95.3	21 20 56.8	56.7	6.1
16	O. A. 15742	9	29 15.73	0.22	16.29	16 28 59.66	4.16	340 17 16.18	22.80	89.5	19 43 60.3	59.1	5.2
17	O. A. 15773	9	32 1.48	0.24	16.29	16 31 45.43	4.24	338 10 9.25	15.60	97.4	21 51 15.1	14.2	5.4
18	O. A. 15797	8	33 5.46	0.20	16.29	16 32 49.37	4.15	341 23 36.70	42.35	85.8	18 37 35.9	35.7	4.6
19	24 Ophiuchi	9	51 6.46	0.26	**16.22**	16 50 50.44	4.36	337 1 55.60	62.12	102.2	22 59 33.2	32.5	3.7
20	η Ophiuchi	9	4 58.86	+0.18	**−16.34**	17 4 42.76	−4.18	344 24 58.65	64.35	76.7	−15 36 4.6	4.8	+0.8
21	36 Ophiuchi	9	9 32.32	+0.30	**−16.29**	17 9 16.35	−4.53	333 34 19.82	25.18	118.8	−26 27 25.5	26.0	+2.9
22	ξ Ophiuchi	9	15 21.02	0.24	**16.25**	17 15 5.00	4.39	339 1 0.90	6.50	94.4	21 0 19.9	20.3	0.8
23	Lal. 31552	9	17 21.36	0.23	16.26	17 17 5.33	4.36	339 54 11.35	17.12	91.1	20 7 6.2	6.4	+0.4
24	O. A. 16844	9	24 10.06	0.22	16.25	17 23 54.03	4.35	340 37 42.15	48.88	88.6	19 23 32.8	32.1	−0.5
25	X Sagittarii	9	41 36.53	0.32	**16.21**	17 41 20.62	4.68	332 14 19.92	26.32	126.6	27 47 32.8	32.7	1.1
26	Mayer 722	9	50 22.49	+0.22	**−16.23**	17 50 6.49	−4.39	341 14 12.58	18.70	86.6	−18 47 0.1	0.3	−3.2
27	Mayer 734	9	1 31.99	+0.25	−16.23	18 1 16.01	−4.50	338 34 11.52	18.05	96.2	−21 27 10.6	10.6	−4.1
28	1 Sagittarii	9	5 57.77	0.28	16.23	18 5 41.82	4.58	336 18 18.15	25.15	105.6	23 43 13.3	12.9	4.3
29	14 Sagittarii	9	8 35.98	0.26	16.24	18 8 20.00	4.52	338 17 4.30	11.80	97.3	21 44 18.8	17.9	4.8
30	Lal. 33516	9	10 48.24	0.28	16.24	18 10 32.28	4.59	336 5 34.55	41.35	106.6	23 55 57.8	57.7	4.8
31	λ Sagittarii	9	22 8.62	0.30	**16.31**	18 21 52.67	4.65	334 33 8.18	14.20	114.0	25 28 31.4	32.2	5.8
32	Bradley 2335	9	33 16.13	+0.25	**−16.19**	18 33 0.13	−4.51	338 53 23.28	30.98	95.0	−21 7 57.3	56.4	−7.5

1900 JULY 16.

CLAMP EAST.

UPDEGRAFF, OBSERVER.

HAMMOND, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec \delta + n \tan \delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
33	ζ^1 Libræ	9	22 55.23	+0.15	**−14.76**	15 22 40.60	−3.69	343 38 45.92	52.98	77.4	−16 22 14.5	14.5	+10.3
34	γ Libræ	9	30 14.19	0.13	**14.76**	15 29 59.55	3.68	345 33 23.60	30.18	72.2	14 27 31.6	32.1	9.0
35	κ Libræ	9	36 29.42	0.17	**14.75**	15 36 14.82	3.84	340 39 43.28	50.70	86.7	19 21 26.4	26.0	10.1
36	λ Libræ	9	47 50.19	+0.18	**−14.80**	15 47 35.61	−3.92	340 8 58.30	65.65	88.6	−19 52 13.2	13.0	+9.2
37	Lal. 29094	9	55 32.98	+0.18	−14.74	15 55 18.42	−3.99	339 8 43.65	52.88	92.2	−20 52 31.4	29.3	+8.8
38	ω^1 Scorpii	9	1 15.99	0.18	14.74	16 1 1.43	4.01	339 37 11.72	19.75	90.5	20 24 1.5	0.8	8.1
39	Piazzi XVI. 17	9	9 16.06	0.19	14.73	16 9 1.52	4.11	337 53 35.42	43.60	97.1	22 7 44.4	43.5	7.8
40	O. A. 15541	9	15 6.59	+0.19	−14.72	16 14 52.06	−4.12	338 25 9.35	18.32	95.1	−21 36 8.4	6.8	+7.1

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
10 18 35	75.80	21.5	20.4
11 15 24	75.80	28.7	26.8
16 0	75.83	27.5	26.2
16 36	75.84	26.5	25.2
17 20	75.81	25.5	24.3
17 52	75.78	25.0	24.0
18 35	75.77	24.6	23.7
16 15 32	75.77	31.3	29.9
15 58	75.78	30.5	29.3

Bisections are made at II and VI, except as noted below.

18. Bisections at IV and VII.
21. Bisections at IV and VI.

Notes.

1–6. Seeing good.
14. Faint.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–6, from stars	*	+5.1
7–32, from stars	*	+6.3
33–40, from stars	*	+8.7

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
5	+10.3	+4.9
6	12.6	5.7
7	11.5	5.4
8	12.9	7.9
9	11.9	6.0
10	9.8	5.4
19	12.2	5.4
20	12.3	6.3
21	13.3	7.6
22	12.3	6.4
25	13.0	6.3
26	12.6	6.1
31	13.2	6.9
32	14.4	6.3
33	15.9	8.5
34	17.3	10.4
35	16.2	8.4
36	+14.6	+6.9

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	ΔT + m.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ψ Ophiuchi	9	18 33.71	+0.18	−14.72	16 18 19.17	−4.09	340 12 52.85	61.20	88.6	−19 48 18.4	17.4	+6.3
2	χ Ophiuchi	9	21 32.23	0.16	14.71	16 21 17.68	4.06	341 47 14.38	23.22	83.4	18 13 51.7	50.2	5.6
3	24 Ophiuchi	9	51 4.94	0.20	**14.66**	16 50 50.46	4.34	337 1 49.75	58.05	101.0	22 59 33.7	33.0	3.8
4	η Ophiuchi	9	4 57.28	0.14	**14.73**	17 4 42.76	4.17	344 24 53.95	60.35	75.8	15 36 4.3	5.5	0.6
5	36 Ophiuchi	9	9 30.72	0.23	**14.63**	17 9 16.29	4.52	333 34 14.22	21.45	117.5	26 27 25.6	26.0	3.2
6	C^2 Ophiuchi	9	25 37.78	0.21	**14.65**	17 25 23.34	4.50	336 8 19.35	28.50	105.0	23 53 7.9	6.5	+0.3
7	X Sagittarii	9	41 35.02	+0.24	**−14.61**	17 41 20.62	−4.69	332 14 14.30	22.22	125.1	−27 47 33.0	32.8	−0.8
8	Mayer 722	9	50 20.92	+0.17	**−14.60**	17 50 6.46	−4.40	341 14 7.78	14.90	85.6	−18 47 0.0	0.7	−3.2
9	Mayer 734	9	1 30.41	0.19	14.63	18 1 15.97	4.51	338 34 5.72	14.75	95.1	21 27 11.4	10.4	4.0
10	1 Sagittarii	9	5 56.18	0.21	14.63	18 5 41.76	4.59	336 18 12.75	22.00	104.4	23 43 13.7	12.4	4.1
11	14 Sagittarii	9	8 34.42	0.19	14.62	18 8 19.99	4.53	338 16 58.60	67.92	96.2	21 44 19.6	18.3	4.7
12	Lal. 33516	9	10 46.64	0.21	14.62	18 10 32.23	4.61	336 5 29.22	37.82	105.4	23 55 58.2	57.6	4.6
13	λ Sagittarii	9	22 7.09	0.22	**14.68**	18 21 52.69	4.67	334 33 3.62	12.10	112.7	25 28 31.0	30.6	5.7
14	Bradley 2335	9	33 14.58	+0.19	**−14.55**	18 33 0.16	−4.54	338 53 18.75	26.85	94.0	−21 7 57.2	57.2	−7.3

1900 NOVEMBER 11. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

15	μ Andromedæ	9	51 40.26	+0.16	**−23.07**	0 51	....	37 57	.....	....	.. ..	....	....
16	43 H. Cephei	9	55 47.06	2.80	**22.30**	0 55	....	85 43	.....	....	.. ..	....	....
17	β Andromedæ	9	4 36.18	0.14	**23.16**	1 4	....	35 5	.....	....	.. ..	....	....
18	α Ursæ Minoris	9	24 21.79	9.85	**23.52**	1 24	....	88 45	.....	....	.. ..	....	....
19	α Canum Venat	9	51 45.92	+0.10	**23.27**	12 51	....	38 51	.....	....	.. ..	....	....
20	α Ursæ Minoris S. P.	8	24 37.29	−5.94	**23.42**	1 24	....	91 12	.....	....	.. ..	....	....
21	η Bootis	9	50 20.66	+0.04	−23.38	13 49	....	18 54	.....	....	.. ..	....	....

1900 NOVEMBER 12. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

22	μ Andromedæ	7	51 40.66	+0.12	**−23.44**	0 51	....	37 57	.....	....	.. ..	....	....
23	43 H. Cephei	9	55 47.82	2.07	**22.43**	0 55	....	85 43	.....	....	.. ..	....	....
24	β Andromedæ	9	4 36.51	0.11	**23.47**	1 4	....	35 5	.....	....	.. ..	....	....
25	α Ursæ Minoris	9	24 22.78	+7.27	**−22.32**	1 24	....	88 45	.....	....	.. ..	....	....

1900 NOVEMBER 13. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

26	μ Andromedæ	9	51 40.99	+ 0.22	**−23.88**	0 51	....	37 57	.....	....	.. ..	....	....
27	43 H. Cephei	9	55 46.92	3.70	**23.29**	0 55	....	85 43	.....	....	.. ..	....	....
28	β Andromedæ	9	4 36.88	0.20	**23.93**	1 4	....	35 5	.....	....	.. ..	....	....
29	α Ursæ Minoris	9	24 16.34	+12.98	**−22.04**	1 24	....	88 45	.....	....	.. ..	....	....
30	α Canum Venat	9	51 46.69	+ 0.13	**−24.02**	12 51	....	38 51	.....	....	.. ..	....	....
31	43 H. Cephei S. P	4	55 53.45	− 2.22	**23.97**	0 55	....	94 14	.....	....	.. ..	....	....
32	α Ursæ Minoris S. P.	6	24 39.18	− 7.79	**24.36**	1 24	....	91 12	.....	....	.. ..	....	....
33	η Bootis	9	50 21.37	+ 0.05	**−24.07**	13 49	....	18 55	.....	....	.. ..	....	....

1900 NOVEMBER 14. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

34	μ Andromedæ	9	51 41.42	+ 0.13	**−24.22**	0 51	....	37 57	.....	....	.. ..	....	....
35	43 H. Cephei	9	55 49.06	2.12	**23.98**	0 55	....	85 43	.....	....	.. ..	....	....
36	β Andromedæ	9	4 37.28	0.12	**24.26**	1 4	....	35 5	.....	....	.. ..	....	....
37	α Ursæ Minoris	9	24 23.03	+ 7.44	**−23.70**	1 24	....	88 46	.....	....	.. ..	....	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
16 16 24	75.79	30.0	28.7
17 11	75.80	29.0	27.7
17 44	75.80	28.5	27.5
18 32	75.81	28.0	27.0

Bisections are made at II and VI, except as noted below.

Notes.

15–18, 30–33. Seeing good.
19–21. Seeing fair; floating clouds.
22–25, 26–29. Seeing rather poor.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–14, from stars	*	+8.7

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
3	+16.8	+8.2
4	16.3	9.6
5	17.3	9.7
6	17.4	7.9
7	16.8	8.5
8	16.4	8.9
13	16.4	7.6
14	+17.7	+9.3

1900 NOVEMBER 15. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α Canum Venat......	9	51 47.73	+ 0.01	**−24.89**	12 51	....	38 51	....	....	.. ..	....	....
2	ε Virginis...........	9	57 39.31	+ 0.01	**24.98**	12 57	....	11 30	....	....	.. ..	....	....
3	α Ursæ Minoris S. P..	9	24 30.67	− 0.45	**−24.19**	1 24	....	91 12	....	....	.. ..	....	....
	1900 NOVEMBER 16. UPDEGRAFF, OBSERVER.							CLAMP WEST.					NO ASSISTANT.
4	μ Andromedæ.......	9	51 42.45	+ 0.03	**−25.17**	0 51	....	37 57	....	....	.. ..	....	....
5	43 H. Cephei	9	55 51.34	0.48	**24.90**	0 55	....	85 43	....	....	.. ..	....	....
6	β Andromedæ.......	9	4 38.38	0.03	**25.28**	1 4	....	35 5	....	....	.. ..	....	....
7	α Ursæ Minoris......	9	24 29.49	+ 1.68	**−25.37**	1 24	....	88 46	....	....	.. ..	....	....
	1900 NOVEMBER 22. UPDEGRAFF, OBSERVER.							CLAMP WEST.					NO ASSISTANT.
8	μ Andromedæ.......	9	51 44.24	+ 0.41	**−27.38**	0 51	....	37 57	....	....	.. ..	....	....
9	43 H. Cephei	9	55 46.94	6.73	**27.69**	0 55	....	85 43	....	....	.. ..	....	....
10	f Piscium...........	9	13 10.32	0.05	**27.33**	1 12	....	3 5	....	....	.. ..	....	....
11	α Ursæ Minoris.....	9	24 7.57	+23.66	**−27.72**	1 24	....	88 46	....	....	.. ..	....	....
	1900 NOVEMBER 27. UPDEGRAFF, OBSERVER.							CLAMP WEST.					NO ASSISTANT.
12	μ Andromedæ.......	6	51 43.84	− 0.39	**−26.23**	0 51	....	37 57	....	....	.. ..	....	....
13	43 H. Cephei	9	55 57.60	6.79	**25.71**	0 55	....	85 43	....	....	.. ..	....	....
14	β Andromedæ.......	6	4 39.68	0.35	**26.28**	1 4	....	35 5	....	....	.. ..	....	....
15	α Ursæ Minoris	9	24 50.44	−23.87	**−25.80**	1 24	....	88 46	....	....	.. ..	....	....
	1900 NOVEMBER 29. UPDEGRAFF, OBSERVER.							CLAMP WEST.					NO ASSISTANT.
16	α Ursæ Minoris S. P..	9	23 53.61	+31.72	**−26.29**	1 23	....	91 12	....	....	.. ..	....	....
17	η Bootis.............	9	50 24.30	− 0.24	**26.38**	13 49	....	18 54	....	....	.. ..	....	....
18	α Bootis.............	9	11 34.75	− 0.25	**−26.44**	14 11	....	19 42	....	....	.. ..	....	....
	1900 NOVEMBER 30. UPDEGRAFF, OBSERVER.							CLAMP WEST.					NO ASSISTANT.
19	43 H. Cephei	9	55 50.50	+ 1.86	**−27.84**	0 55	....	85 43	....	....	.. ..	....	....
20	f Piscium	9	13 11.13	− 0.64	**27.50**	1 12	....	3 5	....	....	.. ..	....	....
21	α Ursæ Minoris	9	24 19.93	+ 6.56	**27.79**	1 23	....	88 45	....	....	.. ..	....	....
22	α Canum Venat.....	9	51 51.31	+ 0.03	**28.07**	12 51	....	38 51	....	....	.. ..	....	....
23	43 H. Cephei S. P	9	55 52.76	− 0.51	**27.83**	0 55	....	94 14	....	....	.. ..	....	....
24	α Ursæ Minoris S. P..	9	24 27.07	− 1.79	**26.90**	1 23	....	91 12	....	....	.. ..	....	....
25	α Bootis	9	11 36.16	+ 0.01	**−28.08**	14 11	. . .	19 42	....	....	.. ..	....	....
	1900 DECEMBER 1. UPDEGRAFF, OBSERVER.							CLAMP WEST.					NO ASSISTANT.
26	μ Andromedæ.......	9	51 45.43	+ 0.15	**−28.40**	0 51	....	37 57	...	....	.. ..	....	....
27	43 H. Cephei	9	55 49.68	2.69	**28.05**	0 55	....	85 43	....	....	.. ..	....	....
28	β Andromedæ.......	9	4 41.25	0.14	**28.37**	1 4	....	35 5	....	....	.. ..	....	....
29	α Ursæ Minoris	9	24 15.49	+ 9.47	**−26.89**	1 23	....	88 45	....	....	.. ..	....	....
30	α Canum Venat.....	9	51 51.61	+ 0.12	**−28.42**	12 51	....	38 51	....	....	.. ..	....	....
31	43 H. Cephei S. P.....	9	55 54.78	− 2.11	**28.45**	0 55	....	94 14	....	....	.. ..	....	....
32	α Ursæ Minoris S. P..	9	24 33.44	− 7.41	**28.25**	1 23	....	91 12	....	....	.. ..	....	....
33	η Bootis	9	50 26.11	+ 0.05	**−28.43**	13 49	....	18 54	....	....	.. ..	....	....

Notes.

3. Star unsteady at times. 4–7, 16–18, 22–33. Seeing good. 8–11. Stars very unsteady.

1900 DECEMBER 2. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	μ Andromedæ	9	51 45.65	+ 0.25	-**28.73**	0 51	....	37 57	.....	....	.. ..	....	....
2	43 H. Cephei	9	55 48.43	4.43	**28.74**	0 55	....	88 43	.....	....	.. ..	....	....
3	β Andromedæ	9	4 41.53	0.22	**28.74**	1 4	....	35 5	.....	....	.. ..	...	....
4	α Ursæ Minoris	9	24 12.33	+ 15.61	−**30.45**	1 23	....	88 45	.....	....	.. ..	....	....

1900 DECEMBER 5. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
5	μ Andromedæ	9	51 46.98	+ 0.19	−**30.04**	0 51	....	37 57	.....	....	.. ..	....	....
6	43 H. Cephei	9	55 50.26	3.17	**29.93**	0 55	....	85 43	.....	....	.. ..	....	....
7	f Piscium	9	13 13.05	0.02	**30.12**	1 12	....	3 5	.....	....	.. ..	....	....
8	α Ursæ Minoris	9	24 14.67	+ 11.15	−**29.97**	1 23	....	88 45	.....	....	.. ..	....	....

1900 DECEMBER 6. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
9	43 H. Cephei	9	55 51.42	+ 2.79	−**30.92**	0 55	....	85 43	.....	....	.. ..	....	....
10	f Piscium	9	13 13.42	0.01	**30.49**	1 12	....	3 5	.....	....	.. ..	....	....
11	α Ursæ Minoris	9	24 16.28	9.81	**30.82**	1 23	....	88 45	.....	....	.. ..	....	....
12	ν Piscium	9	36 48.79	+ 0.01	- **30.53**	1 36	....	4 59	.....	....	.. ..	....	....

1900 DECEMBER 8. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
13	43 H. Cephei	9	55 50.29	+ 4.28	[− **31.73**]	0 55	....	85 42 34.02	35.45	63.21	+85 43 57.9	56.1	....
14	α Ursæ Minoris	9	24 10.33	14.82	[**31.20**]	1 23	....	88 45 32.35	37.82	70.37	88 47 3.2	5.4	....
15	α Trianguli	9	47 59.63	0.16	**31.71**	1 47 28.05	−5.33	29 5 48.48	51.92	10.29	29 5 59.3	59.0	−28.9
16	β Arietis	7	49 43.60	0.11	**31.79**	1 49 11.97	5.08	20 19 34.08	38.85	20.00	20 19 35.1	36.3	26.7
17	γ Andromedæ	9	58 22.94	0.26	**31.73**	1 57 51.46	5.97	41 51 7.22	9.85	3.05	41 51 31.3	30.2	30.6
18	B. D. +38° 413	9	2 58.91	+ 0.23	−31.74	2 2 27.40	−5.87	38 55 26.75	30.52	0.01	+38 55 47.8	47.8	−29.5
19	B. D. +36° 428	9	6 30.82	+ 0.21	−31.74	2 5 59.29	−5.79	36 29 54.60	58.82	2.51	+36 30 13.1	13.6	−28.7
20	B. D. +36° 470	9	17 50.56	0.21	31.74	2 17 19.03	5.92	37 6 24.40	28.98	1.88	37 6 43.5	44.4	27.5
21	B. D. +36° 491	9	21 46.35	0.21	31.74	2 21 14.82	5.92	36 31 10.08	13.28	2.49	36 31 28.5	28.1	26.9
22	B. D. +35° 490	9	25 19.24	0.20	31.74	2 24 47.70	5.91	35 40 29.70	32.90	3.37	35 40 47.3	46.8	26.4
23	B. D. +34° 457	9	27 6.74	0.19	31.75	2 26 35.18	5.89	34 49 27.48	31.52	4.26	34 49 44.2	44.6	26.0
24	B. D. +33° 462	7	29 8.47	+ 0.18	−31.75	2 28 36.90	−5.84	33 28 42.38	45.05	5.66	+33 28 57.7	56.7	−25.5
25	B. D. +34° 476	9	32 22.34	+ 0.19	−31.75	2 31 50.78	−5.92	34 43 50.30	53.85	4.35	+34 44 6.9	6.8	−25.4
26	B. D. +33° 493	9	37 8.61	0.18	31.75	2 36 37.04	5.90	33 20 33.92	38.12	5.81	33 20 49.1	49.6	24.6
27	B. D. +32° 498	9	39 41.79	0.17	31.75	2 39 10.21	5.87	32 20 0.38	4.72	6.87	32 20 14.4	15.2	24.1
28	B. D. +33° 512	9	42 4.96	0.18	31.75	2 41 33.39	5.93	33 13 11.30	13.92	5.93	33 13 26.2	25.3	23.9
29	B. D. +32° 517	9	46 34.43	0.17	31.75	2 46 2.85	5.92	32 19 56.68	60.05	6.87	32 20 10.7	10.5	23.2
30	B. D. 31° 500	9	48 41.96	+ 0.17	−31.75	2 48 10.38	−5.91	31 55 53.28	56.88	7.29	+31 56 6.9	6.9	−22.9
31	B. D. +30° 469	9	52 35.70	+ 0.16	31.75	2 52 4.11	−5.90	31 7 2.48	5.22	8.14	+31 7 15.2	14.4	−22.3
32	B. D. +30° 479	9	56 44.33	0.16	31.75	2 56 12.74	5.90	30 35 39.68	43.08	8.70	30 35 51.9	51.7	21.6
33	B. D. +30° 482	9	59 9.24	0.16	31.75	2 58 37.65	5.93	30 55 19.58	23.08	8.35	30 55 32.1	32.3	21.4
34	B. D. +29° 522	9	1 25.62	0.15	31.75	3 0 54.02	5.91	30 8 37.90	41.00	9.18	30 8 49.6	49.4	21.0
35	B. D. +28° 499	9	4 13.18	0.14	31.75	3 3 41.57	5.86	28 41 52.92	55.60	10.72	28 42 3.1	2.2	20.4
36	B. D. +28° 507	7	8 12.41	+ 0.14	31.75	3 7 40.80	−5.89	28 51 38.20	40.00	10.54	+28 51 48.6	46.8	−19.9
37	ζ Arietis	9	9 46.31	+ 0.10	−**31.74**	3 9 14.66	5.55	20 40	.....	.....	.. ..	....	....
38	B. D. +26° 565	9	24 57.23	0.13	31.75	3 24 25.61	5.88	26 40 57.25	60.58	12.89	+26 41 5.2	5.3	−17.4
39	B. D. +27° 519	9	27 11.18	0.14	31.75	3 26 39.57	5.95	28 1 43.60	44.42	11.43	28 1 53.0	50.6	17.3
40	B. D. +26° 572	9	29 34.73	0.12	31.75	3 29 3.10	5.88	26 16 33.95	36.32	13.33	26 16 41.4	40.6	16.8
41	B. D. +25° 580	9	31 47.43	+ 0.12	−31.75	3 31 15.80	−5.87	25 40 12.65	17.00	13.99	+25 40 19.5	20.6	−16.4

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm	°	°
8 1 25	75.58	3.8	1.8
2 44	75.50	2.4	1.4
3 23	75.49	2.3	1.6

Bisections are made at II and V, except as noted below.

13. Bisection at IV.
14. Bisections at c_1 and c_5.
15, 17–22, 24–32, 35, 36. Bisections at II and VI.
16. Bisections at IV and VI.
23. Bisections at III and VI.

Notes.

2, 11. Seeing excellent.

Adopted Equator Point Corrections.

		A.	B.
		″	″
13, 14, from nadir	0ʰ 35ᵐ	+19.47	+16.19
	1 43	+20.05	+16.95
15–41, from stars		*	+16.8

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
15	+19.9	+17.0
16	21.0	16.6
17	+19.1	+17.0

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+26° 590	9	34 7.18	+0.13	−31.76	3 33 35.55	−5.93	26 53 56.05	57.28	12.66	+26 54 4.2	2.2	−16.2
2	B. D.+25° 598	9	38 16.15	0.12	31.76	3 37 44.51	5.90	25 48 38.10	41.32	13.84	25 48 45.1	45.1	15.5
3	B. D.+24° 562	9	41 39.26	0.11	31.76	3 41 7.61	5.84	24 12 47.45	49.40	15.60	24 12 52.7	51.4	14.9
4	B. D.+23° 561	7	44 1.62	0.11	31.76	3 43 29.97	5.85	24 4 42.35	45.52	15.74	24 4 47.3	47.4	14.6
5	B. D.+24° 583	9	46 3.24	0.11	31.76	3 45 31.59	5.89	24 51 48.62	51.10	14.88	24 51 54.5	53.8	14.4
6	B. D.+25° 641	9	48 10.61	0.12	31.76	3 47 38.97	5.92	25 23 16.80	20.02	14.30	25 23 23.2	23.3	14.1
7	B. D.+22° 613	9	54 48.91	+0.10	−31.76	3 54 17.25	−5.84	23 7 5.48	8.28	16.82	+23 7 9.4	8.9	−13.0
8	B. D.+23° 609	9	59 0.30	+0.11	−31.76	3 58 28.65	−5.89	23 49 58.08	61.65	16.02	+23 50 2.8	3.2	−12.5
9	B. D.+23° 617	9	1 17.06	0.10	31.76	4 0 45.40	5.87	23 15 1.20	3.00	16.67	23 15 5.3	4.0	12.1
10	B. D.+22° 637[2]	9	3 33.89	0.10	31.76	4 3 2.23	5.85	22 50 7.75	11.95	17.13	22 50 11.4	12.4	11.8
11	B. D.+22° 649	9	7 32.89	0.10	31.77	4 7 1.22	5.84	22 9 30.92	35.00	17.89	22 9 33.8	34.7	11.2
12	B. D.+21° 610	9	9 55.39	0.09	31.77	4 9 23.71	5.83	21 50 50.90	54.48	18.25	21 50 53.4	53.9	10.8
13	B. D.+21° 618	9	13 5.52	0.09	31.77	4 12 33.84	5.82	21 20 15.42	18.02	18.83	21 20 17.3	16.8	10.4
14	B. D.+20° 744	9	17 7.23	+0.09	−31.77	4 16 35.55	−5.79	20 35 15.32	18.30	19.71	+20 35 16.3	16.2	− 9.8
15	B. D.+21° 642	9	20 2.04	+0.09	−31.77	4 19 30.36	−5.86	22 4 2.75	4.38	18.00	+22 4 5.4	4.0	− 9.5
16	B. D.+21° 647	9	22 42.11	0.09	31.77	4 22 10.43	5.84	21 23 57.12	59.15	18.76	21 23 59.0	58.0	9.0
17	B. D.+19° 733	9	26 0.24	0.08	31.77	4 25 28.55	5.78	19 55 11.20	14.22	20.46	19 55 11.4	11.4	8.5
18	B. D.+20° 778	9	29 29.26	0.09	31.77	4 28 57.58	5.83	20 53 51.72	53.62	19.34	20 53 53.0	51.9	8.1
19	B. D.+19° 774	9	40 20.91	0.08	31.78	4 39 49.21	5.78	19 8 46.10	47.42	21.37	19 8 45.4	43.7	6.5
20	B. D.+19° 782	7	42 28.79	+0.08	−31.78	4 41 57.09	−5.78	19 8 29.22	31.75	21.38	+19 8 28.5	28.0	− 6.2
21	B. D.+18° 743	8	46 8.88	+0.07	−31.78	4 45 37.17	−5.76	18 40	.....	.....	+18 40	....	....
22	B. D.+19° 811	9	49 43.06	0.08	31.78	4 49 11.36	5.79	19 19 29.98	33.10	21.16	19 19 29.4	29.6	− 5.2
23	B. D.+18° 765	8	53 7.63	0.07	31.78	4 52 35.92	5.77	18 50 25.32	26.68	21.72	18 50 24.2	22.6	4.8
24	ι Tauri............	9	57 44.63	0.09	**31.76**	4 57 12.94	5.88	21 27	.....	.....	21 27	....	....
25	B. D.+17° 841	9	1 6.23	0.07	31.79	5 0 34.51	5.73	17 40 57.92	60.25	23.10	17 40 55.4	54.8	3.6
26	B. D.+15° 752	9	4 35.90	+0.06	−31.79	5 4 4.17	−5.64	15 28 18.42	22.25	25.79	+15 28 13.2	14.1	− 3.2
27	β Orionis...........	9	10 20.73	−0.04	**−31.89**	5 9 48.90	−4.90	351 41 44.18	47.72	64.18	− 8 18 59.4	58.8	− 2.4
28	B. D.+15° 787	9	14 32.16	+0.06	31.79	5 14 0.43	5.66	15 41 1.98	4.10	25.52	+15 40 57.0	56.2	1.8
29	B. D.+15° 799	9	17 15.65	0.06	31.79	5 16 43.92	5.67	16 1 41.38	42.90	25.10	16 1 36.9	35.4	1.5
30	B. D.+15° 813	9	20 48.06	0.06	31.80	5 20 16.32	5.64	15 22 0.78	2.92	25.91	15 21 55.4	54.6	1.0
31	B. D.+14° 934	9	26 30.52	0.06	31.80	5 25 58.78	5.62	14 51 19.12	21.95	26.54	14 51 13.1	13.0	0.2
32	B. D.+14° 947	9	28 50.67	+0.05	−31.80	5 28 18.92	−5.60	14 14 16.08	17.90	27.31	+14 14 9.3	8.2	− 0.0
33	B. D.+14° 958	9	31 23.29	+0.05	−31.80	5 30 51.54	−5.61	14 35 44.00	47.92	26.86	+14 35 37.6	38.7	+ 0.4
34	B. D.+14° 973	9	34 3.23	0.05	31.80	5 33 31.48	5.60	14 30 3.30	6.08	26.98	14 29 56.8	56.7	0.7
35	B. D.+13° 957	9	37 8.54	0.05	31.81	5 36 36.78	5.57	13 32 38.20	40.35	28.19	13 32 30.5	29.8	1.1
36	B. D.+12° 882	9	39 42.01	0.05	31.81	5 39 10.25	5.52	12 22 28.28	30.20	29.68	12 22 19.1	18.2	1.4
37	B. D.+13° 979	9	42 39.99	0.05	31.81	5 42 8.23	5.57	13 51 53.78	56.20	27.78	13 51 46.5	46.1	1.8
38	B. D.+11° 964	9	49 34.21	+0.04	−31.81	5 49 2.44	−5.49	11 44 48.20	50.05	30.49	+11 44 38.2	37.2	+ 2.6
39	B. D.+12° 963	9	53 4.66	+0.05	−31.82	5 52 32.89	−5.52	12 52 19.82	22.40	29.03	+12 52 11.2	11.0	+ 3.1
40	B. D.+11° 995	9	55 36.46	0.04	31.82	5 55 4.68	5.49	11 59 8.62	11.08	30.18	11 58 58.8	58.6	3.4
41	B. D.+11° 1007	9	58 21.36	0.04	31.82	5 57 49.58	5.46	11 8 21.40	24.65	31.29	11 8 10.5	11.0	3.6
42	ν Orionis............	9	2 29.12	0.06	**31.83**	6 1 57.36	5.59	14 46 52.48	54.90	26.61	14 46 46.3	45.9	4.5
43	η Geminorum.......	9	9 28.06	0.09	**31.76**	6 8 56.32	5.88	22 32 0.15	2.48	17.46	22 32 3.0	2.6	6.1
44	μ Geminorum.......	9	17 32.33	+0.09	**−31.90**	6 17 0.58	−5.86	22 33 42.75	46.45	17.43	+22 33 45.6	46.6	+ 7.3

1900 DECEMBER 9. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

45	α Canum Venat.....	9	51 55.90	+0.06	**−32.39**	12 51	....	38 51	.....	.....	+38 51	....	....
46	43 H. Cephei S. P.....	9	55 56.23	−0.96	**32.77**	0 55	....	94 14 13.98	16.80	89.08	85 43 56.6	56.8	....
47	α Ursæ Minoris S. P..	9	24 28.39	−3.38	**32.24**	1 23	....	91 11 13.92	17.02	79.69	88 47 5.5	5.5	....
48	η Bootis............	9	50 30.37	+0.02	**−32.45**	13 49	....	18 53 35.22	36.35	22.51	+18 53 33.1	31.2	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
8 3 57	75.47	+2.2	+1.6
4 47	75.42	2.1	1.4
5 19	75.40	2.0	1.2
6 13	75.36	+1.8	+1.4
9 13 16	76.40	−4.7	−5.2

Bisections are made at II and V, except as noted below.

7. Bisections at II and VI.
16, 27, 44. Bisections at III and V.
46, 48. Bisection at IV.
47. Bisections at c_1 and c_5.

Notes.

35. Observation poor.
45–48. Seeing excellent.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–44, from stars......	*	+16.8
46–48, from nadir	+19.39	+16.37

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
27	+19.8	+16.6
42	18.1	16.1
43	19.2	17.2
44	+20.4	+17.0

1900 DECEMBER 10. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α Ursæ Minoris.....	9	24 18.50	+5.38	[−31.52]	1 23	....	88 45 32.41	37.42	71.90	+88 47 5.5	6.4	....
2	α Trianguli.........	7	48 0.71	0.05	**32.69**	1 47 28.04	−5.32	29 5 47.35	51.80	10.51	29 5 58.4	59.3	−29.0
3	β Arietis	7	49 44.67	0.02	**32.77**	1 49 11.96	5.08	20 19	38.38	20.43	29 19	36.0	26.7
4	γ Andromedæ	9	58 24.09	0.09	**32.72**	1 57 51.45	5.96	41 51 4.15	9.90	3.12	41 51 28.7	30.9	30.8
5	B. D. +37° 480	7	0 47.73	0.08	32.74	2 0 15.07	5.78	37 49	7.82	1.16	37 49	24.7	29.7
6	B. D. +38° 413	9	3 0.09	0.08	32.74	2 2 27.43	5.85	38 55 25.98	30.98	0.01	38 55 47.5	48.5	29.7
7	B. D. +38° 423	5	5 20.21	+0.08	−32.74	2 4 47.55	−5.84	38 14 1.75	5.25	0.72	+38 14 22.5	22.0	−29.3
8	B. D. +37° 505	8	8 31.09	+0.08	−32.74	2 7 58.43	−5.86	37 56 29.58	34.30	1.03	+37 56 50.0	50.7	−28.9
9	B. D. +36° 446	9	10 31.37	0.07	32.74	2 9 58.70	5.80	36 18 29.48	33.72	2.77	36 18 48.2	48.7	28.4
10	B. D. +36° 458	9	13 11.32	0.07	32.75	2 12 38.64	5.84	36 36 27.45	31.85	2.45	36 36 46.4	47.1	28.1
11	B. D. +36° 464	9	15 36.02	0.07	32.75	2 15 3.34	5.86	36 36 54.75	59.08	2.44	36 37 13.8	14.2	27.8
12	B. D. +36° 470	9	17 51.60	0.07	32.75	2 17 18.92	5.91	37 6 25.68	29.50	1.92	37 6 45.2	45.2	27.7
13	B. D. +34° 432	9	20 3.76	0.06	32.75	2 19 31.07	5.81	34 35 33.22	36.85	4.59	34 35 50.1	49.9	27.0
14	B. D. +35° 477	9	22 39.69	+0.06	−32.75	2 22 7.00	−5.87	35 29 10.00	15.38	3.64	+35 29 27.8	29.2	−26.8
15	B. D. +35° 490	9	25 20.25	+0.06	−32.75	2 24 47.56	−5.90	35 40 30.48	34.08	3.44	+35 40 48.5	48.1	−26.5
16	B. D. +33° 454	9	27 28.85	0.06	32.76	2 26 56.15	5.85	34 6 14.05	18.40	5.13	34 6 30.4	30.8	26.0
17	B. D. +34° 469	7	30 21.16	0.06	32.76	2 29 48.46	5.88	34 15 17.08	19.55	4.96	34 15 33.6	31.7	25.7
18	B. D. +34° 476	9	32 23.32	0.06	32.76	2 31 50.62	5.92	34 43 50.80	53.92	4.45	34 44 7.8	6.9	25.5
19	B. D. +32° 483	9	34 24.17	0.06	32.76	2 33 51.47	5.86	33 4 3.12	6.05	6.23	33 4 18.3	17.2	25.0
20	B. D. +33° 493	9	37 9.65	0.06	32.76	2 36 36.95	5.89	33 20 34.65	38.88	5.93	33 20 50.1	50.3	24.7
21	B. D. +32° 522	9	48 13.33	+0.05	−32.77	2 47 40.61	−5.93	32 30 41.85	47.58	6.84	+32 30 56.4	58.0	−23.2
22	B. D. +30° 469	9	52 36.85	+0.05	−32.77	2 52 4.13	−5.90	31 7 2.92	8.65	8.33	+31 7 15.9	17.4	−22.4
23	B. D. +30° 477	9	54 52.12	0.05	32.77	2 54 19.40	5.90	30 43 50.55	53.10	8.75	30 44 3.1	1.5	22.0
24	B. D. +30° 482	9	59 10.27	0.05	32.78	2 58 37.54	5.93	30 55 20.05	23.55	8.54	30 55 32.8	32.1	21.5
25	B. D. +29° 522	9	1 26.73	0.04	32.78	3 0 53.99	5.91	30 8 38.60	42.30	9.38	30 8 50.6	49.9	21.1
26	B. D. +28° 499	9	4 14.24	0.04	32.78	3 3 41.50	5.86	28 41 54.72	56.48	10.96	28 42 5.1	2.5	20.5
27	B. D. +30° 503	9	7 29.45	0.04	32.78	3 6 56.71	5.96	30 28 46.48	50.25	9.02	30 28 58.8	58.1	−20.4
28	ζ Arietis............	9	9 47.45	+0.02	**−32.79**	3 9 14.69	−5.57	20 40	.....	.....	+20 40	....	....
29	B. D. +28° 511	9	11 40.41	+0.04	−32.78	3 11 7.67	−5.89	28 23 35.65	38.55	11.30	+28 23 45.6	44.2	−19.5
30	B. D. +27° 492	9	14 16.63	0.04	32.78	3 13 43.89	5.85	27 10 53.08	56.78	12.64	27 11 1.7	1.0	19.0
31	B. D. +27° 500	9	16 50.20	0.04	32.78	3 16 17.46	5.87	27 15 4.38	7.55	12.58	27 15 13.1	11.8	18.7
32	B. D. +28° 526	9	19 24.21	0.04	32.78	3 18 51.47	5.93	28 18 6.25	11.18	11.40	28 18 16.1	16.6	18.5
33	B. D. +27° 509	9	22 15.27	0.04	32.79	3 21 42.52	5.90	27 24 19.92	22.70	12.39	27 24 28.8	27.0	18.0
34	B. D. +26° 565	9	24 58.29	0.03	32.79	3 24 25.53	5.88	26 40 58.30	61.25	13.20	26 41 6.4	4.8	17.5
35	B. D. +27° 519	9	27 12.33	+0.04	−32.79	3 26 39.58	−5.96	28 1 41.60	45.48	11.71	+28 1 51.1	50.5	−17.4
36	B. D. +26° 572	9	29 35.77	+0.03	−32.79	3 29 3.01	−5.89	26 16 31.20	37.32	13.65	+26 16 38.8	40.3	−16.8
37	B. D. +25° 580	9	31 48.58	0.03	32.79	3 31 15.82	5.87	25 40 12.45	18.18	14.33	25 40 19.4	20.5	16.5
38	B. D. +26° 590	9	34 8.33	0.03	32.79	3 33 35.57	5.94	26 53 55.72	59.08	12.96	26 54 4.0	2.7	16.3
39	B. D. +24° 534	9	36 21.54	0.03	32.39	3 35 48.78	5.87	25 3 5.02	8.45	15.03	25 3 11.2	10.0	15.8
40	B. D. +25° 600	9	38 31.46	0.03	32.79	3 37 58.70	5.89	25 24 45.60	52.00	14.62	25 24 52.2	53.9	15.5
41	B. D. +25° 611	9	40 36.97	0.03	32.79	3 40 4.21	5.91	25 45 57.90	61.92	14.23	25 46 4.9	4.0	15.3
42	B. D. +26° 617	9	42 55.39	+0.03	−32.79	3 42 22.74	−5.95	26 16 57.22	60.78	13.66	+26 17 4.8	3.6	−15.0
43	B. D. +24° 578	9	45 8.61	+0.03	−32.79	3 44 35.85	−5.86	24 11 40.00	43.78	16.01	+24 11 45.2	44.3	−14.5
44	B. D. +24° 589	9	47 33.23	0.03	32.80	3 47 0.46	5.88	24 25 12.50	17.72	15.75	24 25 18.0	18.4	14.2
45	B. D. +24° 595	9	49 46.25	0.03	32.80	3 49 13.48	5.91	24 48 49.10	53.12	15.31	24 48 55.0	54.2	13.9
46	B. D. +24° 599	9	52 6.22	0.03	32.80	3 51 33.45	5.89	24 10 27.82	32.20	16.03	24 10 33.0	32.6	13.5
47	B. D. +22° 612	9	54 35.89	0.02	32.80	3 54 3.11	5.84	22 56 10.20	14.88	17.46	22 56 13.9	13.7	13.0
48	B. D. +23° 609	9	59 1.38	+0.02	−32.80	3 58 28.60	−5.90	23 49 59.45	62.92	16.43	+23 50 4.2	2.8	−12.6

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
10 1 27	76.205	−1.3	−1.6
2 18	76.17	1.3	...
2 29	......	...	1.8
2 52	......	...	−2.0
3 6	76.14	−1.5	...

Bisections are made at II and V, except as noted below.

1.	Bisections at c_1 and c_5.
3.	Bisection at V.
5.	Bisection at IV.
6, 41.	Bisections at II and VI.
7, 8.	Bisections at IV and VI.
9, 15, 17, 18, 27.	Bisections at III and V.

Notes.

5, 6. Through clouds.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1, from nadir.....	+20.60	+16.52
2–48, from stars	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
2	+21.4	+17.2
3	....	17.3
4	+22.4	+16.9

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	γ Tauri.............	9	14 44.49	0.00	−**32.79**	4 14 11.69	−5.61	15 23 26.28	30.38	26.55	+15 23 20.9	19.9	−9.6
2	B. D.+20° 744	9	17 8.33	+0.02	32.80	4 16 35.55	5.81	20 35 15.60	20.15	20.23	20 35 16.5	16.0	9.8
3	B. D.+21° 642	8	20 3.19	0.02	32.80	4 19 30.41	5.88	22 4 2.12	4.70	18.46	22 4 4.7	2.3	9.5
4	B. D.+21° 647	9	22 43.23	0.02	32.81	4 22 10.44	5.86	21 23 57.12	60.38	19.24	21 23 58.9	57.1	9.0
5	B. D.+19° 731	9	25 4.54	0.01	32.81	4 24 31.74	5.79	19 37 30.32	33.40	21.34	19 37 30.0	28.0	8.6
6	B. D.+19° 735	9	27 48.88	0.01	32.81	4 27 16.08	5.77	19 8 20.82	23.25	21.92	19 8 19.9	17.3	8.2
7	B. D.+19° 740	9	30 26.51	+0.01	−32.81	4 29 53.71	−5.80	19 45 55.62	61.12	21.18	+19 45 55.5	55.8	−7.9
8	τ Tauri.............	8	36 53.28	+0.02	−**32.82**	4 36 20.49	−5.95	22 45 58.22	63.30	17.65	+22 46 1.5	1.5	−7.2
9	B. D.+19° 774	9	40 22.04	0.01	32.81	4 39 49.24	5.77	19 8 45.00	49.52	21.91	19 8 44.1	43.4	6.5
10	B. D.+19° 782	9	42 29.97	0.01	32.81	4 41 57.17	5.80	19 8 30.18	33.90	21.92	19 8 29.2	27.8	6.2
11	B. D.+19° 811	9	49 44.22	0.01	32.81	4 49 11.42	5.81	19 19 30.12	34.15	21.70	19 19 29.3	28.4	5.2
12	B. D.+16° 672	9	52 14.29	0.01	32.81	4 51 41.49	5.72	16 59 56.00	60.30	24.52	16 59 52.4	51.7	4.8
13	B. D.+16° 679	9	54 45.41	0.00	32.81	4 54 12.60	5.71	16 40 50.05	53.55	24.91	16 40 46.1	44.6	4.4
14	ι Tauri.............	9	57 45.78	+0.01	−**32.80**	4 57 12.98	−5.91	21 26 52.02	57.85	19.18	+21 26 53.7	54.6	−4.0
15	B. D.+17° 841	9	1 7.27	+0.01	−32.81	5 0 34.47	−5.76	17 40 59.92	61.50	23.68	+17 40 57.1	53.8	−3.6
16	B. D.+15° 752	9	4 37.01	0.00	32.81	5 4 4.20	5.67	15 28 17.85	24.22	26.43	15 28 12.3	13.8	3.1
17	B. D.+17° 857	6	7 2.69	0.00	32.81	5 6 29.88	5.74	17 8 33.68	36.85	24.34	17 8 30.1	28.6	2.8
18	B. D.+16° 735	9	9 12.36	0.00	32.81	5 8 39.55	5.72	16 33 48.82	52.42	25.06	16 33 44.6	43.5	2.5
19	B. D.+16° 741	9	11 33.81	0.00	32.81	5 11 1.00	5.73	16 54 37.42	40.98	24.63	16 54 33.6	32.5	2.1
20	B. D.+15° 787	9	14 33.31	0.00	32.81	5 14 0.50	5.68	15 41 0.30	5.15	26.15	15 40 55.0	55.1	1.7
21	B. D.+15° 797	7	16 53.32	0.00	−32.81	5 16 20.51	−5.70	15 59 45.68	49.12	25.76	+15 59 40.7	39.5	−1.4
22	B. D.+15° 810	9	20 32.56	0.00	−32.81	5 19 59.75	−5.68	15 29 33.72	38.62	26.39	+15 29 28.1	28.5	−0.9
23	B. D.+15° 826	9	22 39.30	0.00	32.82	5 22 6.48	5.69	15 47 29.35	32.75	26.02	15 47 24.1	23.0	0.7
24	B. D.+15° 837	9	25 21.19	0.00	32.82	5 24 48.37	5.67	15 17 5.45	9.28	26.66	15 16 59.6	58.9	−0.3
25	B. D.+15° 851	9	28 2.34	0.00	32.82	5 27 29.52	5.69	15 52 38.55	39.72	25.91	15 52 33.4	30.0	+0.1
26	B. D.+13° 927	9	30 5.55	0.00	32.82	5 29 32.73	5.59	13 20 52.98	58.42	29.15	13 20 44.6	45.6	0.3
27	B. D.+14° 973	9	34 4.39	0.00	32.82	5 33 31.57	5.64	14 30 2.88	6.22	27.66	14 29 55.9	54.9	0.8
28	B. D.+13° 957	9	37 9.62	0.00	−32.82	5 36 36.80	−5.60	13 32 38.70	42.82	28.89	+13 32 30.5	30.3	+1.2
29	B. D.+12° 882	9	39 43.14	0.00	−32.82	5 39 10.32	−5.55	12 22 28.10	32.65	30.42	+12 22 18.4	18.5	+1.5
30	B. D.+13° 979	9	42 41.08	0.00	32.82	5 42 8.26	5.60	13 51 53.40	57.68	28.47	13 51 45.6	45.6	2.0
31	B. D.+12° 925	9	47 15.96	0.00	32.82	5 46 43.14	5.56	12 51 17.42	20.50	29.79	12 51 8.3	7.2	2.5
32	B. D.+11° 964	9	49 35.33	−0.01	32.82	5 49 2.50	5.52	11 44 47.48	52.92	31.26	11 44 36.9	38.2	2.8
33	B. D.+12° 963	9	53 5.76	0.00	32.82	5 52 32.94	5.56	12 52 20.15	24.22	29.76	12 52 11.0	11.0	3.2
34	B. D.+11° 995	9	55 37.42	−0.01	−32.82	5 55 4.59	−5.52	11 59 9.18	14.20	30.94	+11 58 58.9	59.8	+3.5
35	B. D.+11° 1007	9	58 22.38	−0.01	−32.82	5 57 49.55	−5.49	11 8 22.00	25.58	32.09	+11 8 10.5	10.0	+3.8
36	B. D.+11° 1022	9	0 45.69	0.01	32.82	6 0 12.86	5.49	11 13 43.75	47.18	31.97	11 13 32.4	31.9	4.1
37	B. D.+12° 1032	9	3 45.54	−0.01	32.82	6 3 12.71	5.52	12 17 47.92	51.65	30.53	12 17 38.0	37.8	4.6
38	η Geminorum.......	9	9 29.23	+0.01	**32.82**	6 8 56.42	5.91	22 32 0.98	3.48	17.91	22 32 3.6	2.3	6.1
39	μ Geminorum.......	9	17 33.37	+0.01	**32.82**	6 17 0.56	5.90	22 33 45.18	47.72	17.87	22 33 47.8	46.6	7.3
40	8 Monocerotis	9	19 6.24	−0.02	−**32.81**	6 18 33.40	−5.25	4 38 53.35	57.20	41.48	+ 4 38 32.4	32.6	+5.8

1900 DECEMBER 11. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
41	43 H. Cephei S. P	9	55 57.24	−1.97	−**33.23**	0 55	....	94 14 14.62	18.92	88.23	+85 43 56.7	56.9	....
42	α Ursæ Minoris S. P .	8	24 30.65	−5.98	**33.63**	1 23	....	91 11 14.48	18.44	78.92	88 47 5.7	6.2	....
43	η Bootis............	9	50 31.63	+0.04	−**33.68**	13 49	....	18 53 35.10	37.45	22.29	+18 53 33.3	31.1	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
10 4 13	76.12	−1.9	−2.8
4 39	76.10	2.2	2.8
5 0	76.08	2.2	2.8
5 52	76.04	2.3	2.8
6 37	76.02	2.4	2.8
11 13 15	76.18	−4.0	−3.4

Bisections are made at II and V, except as noted below.

3, 17. Bisections at III and V.
29. Bisections at II and VI.
41, 43. Bisection at IV.
42. Bisections at c_1 and c_5.

Note
41-43. Seeing excellent.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–40, from stars	*	*
41–43, from nadir.....	+19.45	+14.95

* Interpolated from diagram.

Eq. Pt. Cor. from stars. No.	A.	B.
	″	″
1	+19.2	+15.4
8	20.1	15.3
14	19.7	14.2
38	18.8	16.6
39	18.4	16.1
40	+18.6	+15.1

1900 DECEMBER 13. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α Ursæ Minoris.....	9	24 22.89	+1.29	[−**34.46**]	1 23	....	88 45 65.40	54.70	68.36	+88 47 6.1	6.4	....
2	α Trianguli.........	9	48 3.09	0.02	**35.07**	1 47 28.00	−5.29	29 6 15.95	4.25	10.00	29 5 59.7	59.5	−29.0
3	β Arietis...........	9	49 47.04	0.01	**35.15**	1 49 11.94	5.06	20 19 61.38	50.50	19.44	20 19 35.8	36.1	26.7
4	γ Andromedæ......	9	58 26.49	0.02	**35.09**	1 57 51.40	5.92	41 51 34.20	22.68	2.97	41 51 30.8	30.7	31.0
5	B. D.+37° 480	9	0 50.08	0.02	35.11	2 0 14.99	5.75	37 49 31.62	20.48	1.11	37 49 24.2	24.5	30.0
6	B. D.+38° 413	9	3 2.36	0.02	35.12	2 2 27.26	5.83	38 55 53.98	44.35	0.01	38 55 47.6	49.5	30.0
7	B. D.+38° 423	7	5 22.48	+0.02	−35.12	2 4 47.38	−5.82	38 14 29.38	18.60	0.69	+38 14 22.3	23.0	−29.6
8	B. D.+37° 505	9	8 33.37	+0.02	−35.12	2 7 58.27	−5.84	37 56 57.75	45.92	0.98	+37 56 50.3	50.0	−29.2
9	B. D.+36° 446	9	10 33.72	0.02	35.12	2 9 58.62	5.78	36 18 57.18	46.08	2.63	36 18 48.1	48.5	28.6
10	B. D.+36° 458	9	13 13.79	0.02	35.12	2 12 38.69	5.82	36 36 55.18	44.08	2.33	36 36 46.4	46.9	28.4
11	B. D.+36° 464	9	15 38.44	0.02	35.12	2 15 3.34	5.84	36 37 22.28	10.82	2.32	36 37 13.5	13.6	28.1
12	B. D.+36° 470	9	17 54.03	0.02	35.12	2 17 18.93	5.89	37 6 53.18	41.68	1.83	37 6 44.9	44.9	27.9
13	B. D.+34° 432	9	20 6.19	0.02	35.12	2 19 31.09	5.79	34 35 60.30	49.55	4.37	34 35 49.4	50.3	27.2
14	B. D.+35° 477	9	22 42.11	+0.02	−35.12	2 22 7.01	−5.86	35 29 38.65	27.98	3.47	+35 29 28.6	29.6	−27.0
15	B. D.+35° 490	9	25 22.68	+0.02	−35.12	2 24 47.58	−5.89	35 40 58.15	46.90	3.28	+35 40 48.3	48.7	−26.8
16	B. D.+33° 454	9	27 31.13	0.02	35.12	2 26 56.03	5.83	34 6 42.95	31.62	4.89	34 6 31.5	31.8	26.2
17	B. D.+34° 469	9	30 23.48	0.02	35.12	2 29 48.38	5.86	34 15 42.32	32.32	4.72	34 15 31.1	32.7	25.9
18	B. D.+34° 476	8	32 25.77	0.02	35.13	2 31 50.66	5.90	34 44 19.00	7.18	4.23	34 44 8.1	8.0	25.8
19	B. D.+32° 483	9	34 26.61	0.02	35.13	2 33 51.50	5.84	33 4 31.60	19.35	5.93	33 4 19.0	18.4	25.2
20	B. D.+33° 493	9	37 11.99	0.02	35.13	2 36 36.88	5.88	33 20 62.32	51.25	5.65	33 20 50.0	50.6	24.9
21	B. D.+32° 498	9	39 45.28	+0.01	−35.13	2 39 10.16	−5.85	32 20 29.30	17.58	6.68	+32 20 16.0	15.9	−24.4
22	B. D.+33° 512	9	42 8.43	+0.02	−35.13	2 41 33.32	−5.91	33 13 39.45	27.25	5.78	+33 13 26.9	26.5	−24.3
23	B. D.+32° 522	9	48 15.76	0.01	35.13	2 47 40.64	5.92	32 30 70.10	59.52	6.52	32 30 56.8	58.0	23.4
24	B. D.+30° 469	9	52 39.13	0.01	35.13	2 52 4.01	5.89	31 7 32.70	19.45	7.94	31 7 18.0	16.5	22.6
25	B. D.+30° 477	9	54 54.49	0.01	35.13	2 54 19.37	5.89	30 44 18.88	5.45	8.34	30 44 3.7	2.1	22.2
26	B. D.+30° 482	9	59 12.58	0.01	35.13	2 58 37.46	5.93	30 55 48.25	35.58	8.14	30 55 33.3	32.4	21.7
27	B. D.+29° 522	9	1 29.08	+0.01	−35.13	3 0 53.96	−5.91	30 8 67.78	54.52	8.95	+30 8 52.0	50.6	−21.3
28	B. D.+28° 499	9	4 16.57	+0.01	−35.14	3 3 41.44	−5.86	28 42 22.78	8.30	10.45	+28 42 5.5	2.9	−20.7
29	B. D.+30° 503	9	7 31.83	0.01	35.14	3 6 56.70	5.96	30 29 14.62	1.72	8.60	30 28 59.1	58.1	20.6
30	ζ Arietis............	9	9 49.77	0.01	**35.11**	3 9 14.64	5.56	20 40 70.25	59.45	19.11	20 40 44.3	45.4	18.5
31	B. D.+28° 511	9	11 42.82	0.01	35.14	3 11 7.69	5.89	28 23 63.18	49.88	10.78	28 23 45.5	44.1	19.6
32	B. D.+27° 492	9	14 18.95	0.01	35.14	3 13 43.82	5.85	27 11 20.15	9.28	12.05	27 11 1.2	2.2	19.1
33	B. D.+27° 500	9	16 52.51	+0.01	−35.14	3 16 17.38	−5.87	27 15 33.18	20.70	12.00	+27 15 14.3	13.6	−18.8
34	B. D.+28° 526	9	19 26.57	+0.01	−35.14	3 18 51.44	−5.93	28 18 36.28	22.62	10.88	+28 18 18.5	16.7	−18.6
35	B. D.+27° 509	9	22 17.63	0.01	35.14	3 21 42.50	5.91	27 24 46.85	34.80	11.82	27 24 28.0	27.9	18.1
36	B. D.+26° 565	9	25 0.69	0.01	35.14	3 24 25.56	5.89	26 41 24.48	13.45	12.59	26 41 4.9	5.8	17.6
37	B. D.+27° 519	9	27 14.67	0.01	35.14	3 26 39.54	5.96	28 1 71.75	57.52	11.17	28 1 53.6	51.3	17.5
38	B. D.+26° 572	9	29 38.14	0.01	35.14	3 29 3.01	5.90	26 16 59.92	48.08	13.03	26 16 39.9	40.0	17.0
39	B. D.+25° 580	9	31 50.95	+0.01	−35.15	3 31 15.81	−5.88	25 40 41.12	28.95	13.67	+25 40 20.4	20.2	−16.5
40	B. D.+26° 590	9	34 10.69	+0.01	−35.15	3 33 35.55	−5.94	26 54 23.32	10.28	12.37	+26 54 3.9	2.8	−16.4
41	B. D.+24° 534	9	36 23.87	0.01	35.15	3 35 48.73	5.87	25 3 32.12	21.05	14.34	25 3 10.7	11.6	15.9
42	B. D.+25° 600	9	38 33.83	0.01	35.15	3 37 58.69	5.90	25 25 14.28	3.25	13.96	25 24 53.2	54.2	15.6
43	B. D.+25° 611	8	40 39.31	0.01	35.15	3 40 4.17	5.92	25 46 24.38	12.72	13.58	25 46 3.7	4.1	15.4
44	B. D.+26° 617	9	42 57.63	0.01	35.15	3 42 22.49	5.96	26 17 25.52	13.60	13.03	26 17 5.4	5.5	15.1
45	B. D.+24° 578	9	45 10.95	+0.01	−35.15	3 44 35.81	−5.87	24 11 67.75	55.32	15.28	+24 11 45.3	45.0	−14.5
46	B. D.+24° 589	9	47 35.58	+0.01	−35.15	3 47 0.44	−5.89	24 25 41.18	29.25	15.03	+24 25 19.0	19.1	−14.2
47	B. D.+24° 595	9	49 48.59	0.01	35.15	3 49 13.45	5.92	24 49 17.10	5.10	14.61	24 48 55.3	55.4	14.0
48	B. D.+24° 599	9	52 8.57	0.01	35.15	3 51 33.43	5.90	24 10 56.18	43.85	15.31	24 10 33.7	33.5	13.6
49	B. D.+22° 612	9	54 38.25	0.01	35.15	3 54 3.11	5.86	22 56 37.88	26.62	16.66	22 56 14.1	14.8	13.1
50	B. D.+23° 609	9	59 3.73	0.01	35.15	3 58 28.59	5.91	23 50 25.28	14.18	15.69	23 50 2.3	3.3	12.6
51	B. D.+21° 610	9	9 58.83	+0.01	−35.16	4 9 23.68	−5.86	21 51 17.98	5.85	17.89	+21 50 52.7	52.8	−10.9

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
13 1 20	75.34	8.9	8.7
2 12	75.39	8.5	...
2 21	.....	...	8.6
2 57	75.41	8.2	8.0
3 24	.....	...	7.8

Bisections are made at II and V, except as noted below.

1. Bisections at c_1 and c_5.
3. Bisections at II and VI.
5, 18, 43. Bisections at III and V.

Notes.

5, 7, 21. Faint; poor.

Eq. Pt. Cor. from stars. No.	A.	B.
	″	″
2	−7.7	+4.2
3	7.0	4.4
4	7.3	4.5
30	−7.8	+3.3

Adopted Equator Point Corrections.

	A.	B.
	″	″
1, from nadir.....	−8.26	+2.76
2–51, from stars......	*	*

*Interpolated from diagram.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+21° 617	9	12 35.97	+0.01	−35.16	4 12 0.82	−5.88	22 6 64.38	52.40	17.60	+22 6 39.4	39.6	−10.5
2	γ Tauri.............	9	14 46.87	0.01	**35.16**	4 14 11.72	5.61	15 23 52.95	40.82	25.37	15 23 20.3	20.3	9.5
3	B. D.+20° 744	9	17 10.66	0.01	35.16	4 16 35.51	5.83	20 35 42.28	31.05	19.33	20 35 15.6	16.6	9.8
4	B. D.+21° 642	9	20 5.48	0.01	35.16	4 19 30.33	5.90	22 4 29.28	16.00	17.65	22 4 4.3	3.2	9.5
5	B. D.+21° 647	9	22 45.56	0.01	35.16	4 22 10.41	5.88	21 24 23.60	11.65	18.40	21 23 57.8	58.1	9.1
6	B. D.+19° 731	9	25 6.84	0.01	35.16	4 24 31.69	5.81	19 37 57.62	45.90	20.42	19 37 29.8	30.3	8.6
7	B. D.+19° 735	8	27 51.27	+0.01	−35.16	4 27 16.12	−5.80	19 8 47.05	35.08	20.97	+19 8 18.6	18.9	− 8.2
8	B. D.+19° 740	9	30 28.87	+0.01	−35.16	4 29 53.72	−5.83	19 46 23.95	12.22	20.27	+19 45 56.2	56.8	− 7.8
9	B. D.+20° 785	9	33 2.80	0.01	35.16	4 32 27.65	5.86	20 29 36.35	24.62	19.45	20 29 9.4	10.0	7.6
10	B. D.+19° 774	9	40 24.41	0.01	35.17	4 39 49.25	5.82	19 9 12.98	0.28	21.00	19 8 44.4	44.1	6.4
11	B. D.+19° 782	9	42 32.36	0.01	35.17	4 41 57.20	5.82	19 8 58.42	44.75	21.02	19 8 29.9	28.6	6.1
12	B. D.+18° 743	9	46 12.38	0.01	35.17	4 45 37.22	5.81	18 40 45.40	32.38	21.56	18 40 16.3	15.5	5.5
13	B. D.+19° 811	9	49 46.57	0.01	35.17	4 49 11.41	5.84	19 19 57.42	44.88	20.82	19 19 29.1	28.8	5.1
14	B. D.+16° 672	9	52 16.63	+0.01	−35.17	4 51 41.47	−5.75	17 0 23.70	11.10	23.54	+16 59 52.6	52.3	− 4.7
15	B. D.+16° 679	9	54 47.88	+0.01	−35.17	4 54 12.72	−5.74	16 41 16.65	3.95	23.93	+16 40 45.1	44.8	− 4.3
16	ι Tauri.............	9	57 48.17	0.01	**35.17**	4 57 13.01	5.93	21 27 19.92	7.98	18.43	21 26 53.9	54.3	4.0
17	B. D.+17° 841	9	1 9.76	0.01	35.17	5 0 34.60	5.79	17 41 24.65	13.28	22.78	17 40 54.4	55.2	3.5
18	B. D.+15° 752	9	4 39.36	0.01	35.17	5 4 4.20	5.70	15 28 47.25	33.85	25.44	15 28 14.3	13.1	2.9
19	B. D.+17° 867	9	7 5.01	0.01	35.18	5 6 29.84	5.78	17 8 59.35	47.45	23.43	17 8 28.5	28.6	2.6
20	B. D.+16° 735	9	9 14.78	0.01	35.18	5 8 39.61	5.75	16 34 15.95	3.42	24.13	16 33 44.4	44.0	2.3
21	B. D.+16° 741	9	11 36.28	+0.01	−35.18	5 11 1.11	−5.77	16 54 65.22	53.05	23.74	+16 54 34.1	34.1	− 2.0
22	B. D.+15° 787	9	14 35.64	0.00	−35.18	5 14 0.46	−5.72	15 41 27.68	15.95	25.22	+15 40 55.0	55.3	− 1.6
23	B. D.+15° 797	9	16 55.75	0.00	35.18	5 16 20.57	5.73	15 59 71.42	59.15	24.85	15 59 39.1	39.0	1.3
24	B. D.+15° 810	9	20 34.91	+0.01	35.18	5 19 59.74	5.71	15 29 61.78	49.22	25.48	15 29 28.9	28.5	0.8
25	B. D.+15° 826	9	22 41.71	0.00	35.18	5 22 6.53	5.73	15 47 55.28	44.22	25.12	15 47 22.7	23.8	0.5
26	B. D.+15° 837	9	25 23.57	0.00	35.18	5 24 48.39	5.71	15 17 30.95	19.95	25.74	15 16 57.9	58.9	− 0.1
27	B. D.+15° 851	9	28 4.78	0.00	35.18	5 27 29.60	5.73	15 52 64.60	51.92	25.02	15 52 32.3	31.6	+ 0.2
28	B. D.+13° 927	9	30 7.93	+0.01	−35.18	5 29 32.76	−5.63	13 21 18.98	9.20	28.15	+13 20 43.5	45.8	+ 0.5
29	B. D.+14° 973	9	34 6.69	0.00	−35.18	5 33 31.51	−5.68	14 30 29.68	18.85	26.71	+14 29 55.7	56.6	+ 1.0
30	B. D.+13° 957	9	37 11.98	0.00	35.18	5 36 36.80	5.64	13 32 65.12	53.25	27.91	13 32 29.9	30.0	1.4
31	B. D.+12° 882	9	39 45.54	+0.01	35.19	5 39 10.36	5.60	12 22 55.98	43.20	29.40	12 22 19.3	18.4	1.7
32	B. D.+13° 979	9	42 43.41	0.00	35.19	5 42 8.22	5.65	13 52 19.78	8.12	27.51	13 51 45.0	45.2	2.2
33	B. D.+12° 925	9	47 18.33	0.00	35.19	5 46 43.14	5.61	12 51 43.68	32.85	28.79	12 51 7.7	8.7	2.7
34	B. D.+11° 964	9	49 37.70	+0.01	35.19	5 49 2.52	5.57	11 45 15.85	4.98	30.21	11 44 38.4	39.4	3.0
35	B. D.+12° 963	8	53 8.14	0.00	−35.19	5 52 32.95	−5.60	12 52 47.40	36.28	28.77	+12 52 11.4	12.2	+ 3.5
36	B. D.+11° 995	9	55 39.82	0.00	−35.19	5 55 4.63	−5.57	11 59 36.70	23.88	29.91	+11 58 59.6	58.6	+ 3.8
37	B. D.+11° 1007	9	58 24.77	0.00	35.19	5 57 49.58	5.54	11 8 49.78	38.12	31.02	11 8 11.6	11.8	4.1
38	B. D.+11° 1022	9	0 48.09	0.00	35.19	6 0 12.90	5.54	11 13 70.20	58.45	30.90	11 13 32.1	32.2	4.4
39	B. D.+12° 1032	9	3 47.98	0.00	35.19	6 3 12.79	5.57	12 18 14.78	3.55	29.52	12 17 38.1	38.7	4.8
40	η Geminorum	9	9 31.63	0.00	**35.15**	6 8 56.43	5.97	22 32 27.80	15.32	17.32	22 32 3.2	2.6	6.3
41	8 Monocerotis......	9	19 8.62	+0.01	**35.18**	6 18 33.43	5.29	4 39 17.75	7.72	40.13	4 38 30.6	32.2	6.2
42	ν Geminorum	9	23 42.62	0.00	**−35.25**	6 23 7.42	−5.84	20 16 51.45	38.72	19.89	+20 16 24.4	23.4	+ 8.0

1900 DECEMBER 14. CLAMP WEST.

LITTELL, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
43	α Trianguli	9	48 3.80	−0.16	**−35.61**	1 47 28.00	−5.28	29 6 3.68	7.70	10.68	+29 5 60.7	58.5	−29.1
44	β Arietis	9	49 47.67	0.11	**35.67**	1 49 11.92	5.05	20 19 49.05	55.50	20.76	20 19 36.0	36.3	26.7
45	γ Andromedæ	9	58 27.32	0.26	**35.65**	1 57 51.42	5.91	41 51 19.18	27.00	3.17	41 51 29.8	31.7	31.1
46	B. D.+37° 480	9	0 50.62	0.22	35.64	2 0 14.76	5.74	37 49 18.72	24.30	1.18	37 49 25.1	24.6	30.0
47	B. D.+37° 490	9	4 37.67	−0.23	−35.64	2 4 1.80	−5.80	38 11 48.30	54.18	0.78	+38 11 55.1	54.9	−29.7
48	B. D.+36° 428	9	6 34.84	−0.22	−35.64	2 5 58.98	−5.74	36 30 9.90	15.52	2.61	+36 30 14.8	14.4	−29.1
49	B. D.+37° 505	9	8 34.04	0.23	35.64	2 7 58.17	5.83	37 56 44.20	49.52	1.05	37 56 50.7	50.0	29.2
50	B. D.+36° 446	9	10 34.39	0.22	35.64	2 9 58.53	5.77	36 18 43.98	49.92	2.81	36 18 48.7	48.6	28.6
51	B. D.+36° 458	9	13 14.56	0.22	35.64	2 12 38.70	5.81	36 36 40.92	47.60	2.49	36 36 46.0	46.6	28.4
52	B. D.+36° 464	9	15 39.16	−0.22	−35.64	2 15 3.30	−5.84	36 37 8.90	14.92	2.48	+36 37 13.9	13.8	−28.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
13 4 19	75.50	+7.3	...
4 22	.....	...	+6.9
4 45	75.52	6.8	6.1
5 20	75.55	6.0	4.5
6 12	75.60	+5.0	+4.4
14 1 44	76.34	−3.5	−5.2

Bisections are made at II and V, except as noted below.

15, 18, 23, 35.	Bisections at III and V.
19, 22, 29.	Bisections at II and VI.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–42, from stars......	*	*
43–52, from stars......	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
2	−8.8	+3.7
16	8.9	3.3
40	8.8	4.0
41	7.6	2.9
42	−8.7	4.3
43	+5.3	1.6
44	6.7	+0.5
45	+7.7	0.0

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ → n TAN δ.	ΔT+m.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+36° 473	9	18 18.29	−0.22	−35.64	2 17 42.43	−5.86	36 39 15.35	20.95	2.44	+36 39 20.4	19.9	−27.9
2	B. D.+34° 432	9	20 6.77	0.21	35.64	2 19 30.92	5.79	34 35 47.10	53.32	4.67	34 35 50.0	50.0	27.2
3	B. D.+35° 477	9	22 42.82	0.22	35.64	2 22 6.96	5.85	35 29 26.18	31.58	3.70	35 29 30.0	29.3	27.1
4	B. D.+33° 447	9	25 39.51	0.20	35.64	2 25 3.67	5.80	33 55 21.10	27.22	5.40	33 55 23.3	23.2	26.4
5	B. D.+33° 454	9	27 31.91	0.21	35.64	2 26 56.06	5.83	34 6 29.50	34.72	5.22	34 6 31.7	30.9	26.2
6	B. D.+34° 469	9	30 24.17	0.21	35.64	2 29 48.32	5.86	34 15 29.32	36.00	5.04	34 15 31.7	32.4	26.0
7	B. D.+34° 476	9	32 26.52	−0.21	−35.64	2 31 50.67	−5.90	34 44 5.72	12.70	4.52	+34 44 8.6	9.6	−25.8
8	B. D.+32° 483	9	34 27.33	−0.20	−35.64	2 33 51.49	−5.84	33 4 17.70	24.88	6.33	+33 4 18.8	20.0	−25.2
9	B. D.+32° 490	9	37 20.13	0.20	35.64	2 36 44.29	5.84	32 28 57.80	63.25	6.97	32 28 58.3	57.7	24.8
10	B. D.+32° 498	9	39 45.89	0.20	35.64	2 39 10.05	5.85	32 20 15.42	21.18	7.13	32 20 15.8	15.5	24.4
11	B. D.+33° 512	9	42 9.10	0.20	35.64	2 41 33.26	5.91	33 13 26.30	31.12	6.17	33 13 27.6	26.4	24.3
12	B. D.+32° 517	9	46 38.51	0.20	35.64	2 46 2.67	5.90	32 20 12.02	17.35	7.14	32 20 12.4	11.6	23.6
13	B. D.+31° 500	9	48 46.07	0.20	35.64	2 48 10.23	5.90	31 56 8.20	13.02	7.57	31 56 8.1	6.9	23.2
14	B. D.+30° 466	9	51 11.74	−0.19	−35.64	2 50 35.91	−5.85	30 28 59.42	63.85	9.17	+30 28 57.7	56.1	−22.7
15	B. D.+30° 477	9	54 55.23	−0.19	−35.64	2 54 19.40	−5.89	30 44 5.05	10.82	8.90	+30 44 3.6	3.2	−22.3
16	B. D.+29° 517	9	58 20.90	0.19	35.64	2 57 45.07	5.88	30 7 33.22	.....	9.57	30 7 31.0	....	21.7
17	B. D.+29° 519	9	0 22.77	0.19	35.64	2 59 46.94	5.90	30 8 42.72	46.78	9.55	30 8 40.6	38.5	21.5
18	B. D.+30° 494	9	4 24.74	0.20	35.64	3 3 48.90	5.97	31 1 22.15	27.12	8.58	31 1 20.9	19.9	21.1
19	B. D.+30° 503	9	7 32.57	0.19	35.64	3 6 56.74	5.96	30 29 1.85	5.68	9.18	30 28 60.1	57.8	20.6
20	ζ Arietis	9	9 50.44	0.13	**35.64**	3 9 14.67	5.56	20 40 57.72	64.15	20.39	20 40 44.8	45.1	18.5
21	B. D.+28° 511	9	11 43.53	−0.18	−35.64	3 11 7.71	−5.89	28 23 50.38	54.25	11.50	+28 23 46.3	44.1	−19.7
22	B. D.+27° 492	9	14 19.66	−0.17	−35.64	3 13 43.85	−5.85	27 11 7.85	13.72	12.86	+27 11 2.4	2.2	−19.2
23	B. D.+27° 500	9	16 53.24	0.17	35.64	3 16 17.43	5.87	27 15 19.65	25.58	12.80	27 15 14.3	13.9	18.8
24	B. D.+28° 526	9	19 27.23	0.18	35.64	3 18 51.41	5.93	28 18 22.38	27.32	11.60	28 18 18.2	17.0	18.6
25	B. D.+27° 509	9	22 18.33	0.18	35.64	3 21 42.51	5.91	27 24 34.30	39.20	12.61	27 24 29.1	27.9	18.1
26	B. D.+27° 513	9	25 39.98	0.18	35.64	3 25 4.16	5.92	27 23 18.90	23.52	12.64	27 23 13.6	12.2	17.7
27	B. D.+26° 574	9	30 0.91	−0.17	−35.64	3 29 25.10	−6.01	26 31 22.70	27.25	13.61	+26 31 16.4	15.0	−17.0
28	B. D.+25° 584	9	34 10.74	−0.17	−35.64	3 33 34.93	−5.90	25 48 28.88	34.15	14.43	+25 48 21.8	21.0	−16.3
29	B. D.+24° 534	9	36 24.53	0.16	35.64	3 35 48.73	5.87	25 3 17.82	24.58	15.29	25 3 9.8	10.6	15.9
30	B. D.+25° 600	9	38 34.47	0.17	35.64	3 37 58.66	5.90	25 25 0.88	7.92	14.88	25 24 53.3	54.4	15.6
31	B. D.+25° 611	9	40 40.06	0.17	35.64	3 40 4.25	5.92	25 46 12.08	17.45	14.48	25 46 4.9	4.2	15.4
32	B D.+26° 617	9	42 58.32	0.17	35.64	3 42 22.51	5.96	26 17 12.72	17.40	13.90	26 17 6.1	4.7	15.2
33	B. D.+24° 578	9	45 11.63	−0.16	−35.64	3 44 35.83	−5.88	24 11 54.35	60.00	16.29	+24 11 45.4	44.9	−14.6
34	B. D.+24° 589	9	47 36.14	−0.16	−33.64	3 47 0.34	−5.90	24 25 26.55	33.82	16.03	+24 25 17.8	19.0	−14.3
35	B. D.+24° 595	9	49 49.29	0.16	35.64	3 49 13.49	5.92	24 49 1.60	9.50	15.58	24 48 53.3	55.1	14.0
36	B. D.+22° 612	8	54 38.86	0.15	35.64	3 54 3.07	5.86	22 56 24.30	30.48	17.76	22 56 13.8	13.9	13.1
37	λ Tauri	5	55 49.54	0.09	**35.65**	3 55 13.81	5.45	12 13	.....	.....	12 13	....	....
38	B. D.+23° 606	9	58 30.54	0.16	35.64	3 57 54.74	5.92	24 7 52.90	60.30	16.38	24 7 43.7	45.1	12.7
39	B. D.+23° 617	9	1 21.27	−0.16	−35.64	4 0 45.47	−5.90	23 15 14.25	20.78	17.41	+23 15 4.1	4.6	−12.2
40	B. D.+22° 637^{a}	9	3 38.07	−0.15	−35.64	4 3 2.28	−5.89	22 50 22.20	28.40	17.89	+22 50 11.5	11.7	−11.9
41	B. D.+22° 649	9	7 37.07	0.15	35.64	4 7 1.28	5.87	22 9 46.05	51.85	18.69	22 9 34.6	34.4	11.2
42	B. D.+21° 610	9	9 59.51	0.15	35.64	4 9 23.72	5.86	21 51 4.38	11.55	19.06	21 50 52.6	53.7	10.9
43	B. D.+21° 618	9	13 9.66	0.15	35.64	4 12 33.87	5.85	21 20 27.60	34.85	19.67	21 20 15.2	16.4	10.4
44	γ Tauri	9	14 47.46	0.11	**35.62**	4 14 11.71	5.64	15 23 40.72	.....	27.03	15 23 21.0	....	9.4
45	B. D.+20° 740	9	16 19.06	−0.14	−35.64	4 15 43.28	−5.84	20 48 32.35	38.52	20.31	+20 48 19.3	19.4	− 9.9
46	B. D.+20° 751	9	18 20.36	−0.14	−35.64	4 17 44.58	−5.84	20 45 19.35	26.42	20.37	+20 45 6.2	7.2	− 9.6
47	B. D.+19° 740	9	30 29.57	0.14	35.64	4 29 53.79	5.83	19 46 10.42	16 95	21.57	19 45 56.0	56.5	7.8
48	B. D.+19° 755	9	36 24.08	0.14	35.64	4 35 48.30	5.86	20 4 35.58	41.20	21.21	20 4 21.5	21.1	7.0
49	B. D.+18° 717	9	40 56.64	0.13	35.64	4 40 20.87	5.81	18 37 26.30	30.78	22.99	18 37 10.5	8.9	6.3
50	B. D.+17° 791	9	45 13.64	0.13	35.64	4 44 37.87	5.76	17 21 16.25	21.88	24.56	17 20 58.9	58.5	5.6
51	B. D.+18° 747	9	48 25.93	−0.14	−35.64	4 47 50.15	−5.83	18 54 46.52	53.05	22.64	+18 54 31.0	31.5	− 5.3
52	π⁵ Orionis	7	49 43.47	−0.03	**−35.67**	4 49 7.80	−5.24	2 17	26.62	46.21	+ 2 16	41.6	− 4.1
53	B. D.+16° 672	9	52 17.27	0.12	35.64	4 51 41.51	5.76	17 0 10.38	16.60	25.02	16 59 52.5	52.7	4.6
54	B. D.+16° 679	9	54 48.46	0.12	35.64	4 54 12.70	5.75	16 41 2.82	9.75	25.42	16 40 44.6	45.5	4.3
55	B. D.+16° 685	9	56 50.02	0.12	35.64	4 56 14.26	5.75	16 41 35.00	40.70	25.42	16 41 16.7	16.4	4.0
56	ι Tauri	7	57 48.68	0.16	**35.49**	4 57 12.88	5.95	21 27	.....	.....	21 27	....	....
57	B. D.+18° 777	9	59 41.86	−0.13	−35.64	4 59 6.09	−5.81	18 7 14.22	19.32	23.63	+18 6 57.7	56.7	− 3.7

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
14 2 17	.....	...	−5.4
2 29	.....	...	5.5
2 53	76.34	−4.5	5.7
3 32	76.34	4.8	6.2
4 10	76.36	5.1	6.6
4 33	76.37	−5.3	−6.8

Bisections are made at II and V, except as noted below.

16, 44.	Bisection at II.
23.	Bisections at II and VI.
45.	Bisections at III and V.
52.	Bisection at V.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
20	+6.0	−0.1
44	+5.0	...
52	...	+0.3

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–57, from stars......	*	*

*Interpolated from diagram.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+16° 697	9	1 56.19	− 0.12	−35.64	5 1 20.43	−5.76	16 42 4.12	8.62	25.41	+16 41 45.8	44.2	3.3
2	B. D.+17° 862	9	5 33.49	0.13	35.64	5 4 57.72	5.79	17 19 13.15	18.45	24.64	17 18 55.6	54.8	2.8
3	B. D.+16° 735	9	9 15.40	0.12	35.64	5 8 39.64	5.76	16 34 4.35	10.38	25.58	16 33 45.9	45.8	2.3
4	B. D.+16° 741	9	11 36.85	0.13	35.64	5 11 1.08	5.78	16 54 52.75	59.30	25.15	16 54 34.7	35.2	2.0
5	B. D.+15° 789	9	14 59.99	0.12	35.64	5 14 24.23	5.74	16 1 28.50	33.85	26.28	16 1 9.3	8.6	1.5
6	B. D.+15° 797	9	16 56.33	0.12	35.64	5 16 20.57	5.74	15 59 58.78	65.00	26.31	15 59 39.5	39.7	1.2
7	B. D.+15° 810	9	20 35.53	− 0.12	−35.64	5 19 59.77	5.72	15 29 48.42	55.08	26.96	+15 29 28.5	29.2	0.7
8	B. D.+15° 826	9	22 42.24	− 0.12	−35.64	5 22 6.48	5.74	15 47 43.12	49.35	26.58	+15 47 23.6	23.8	0.4
9	B. D.+15° 837	9	25 24.23	0.12	35.64	5 24 48.47	5.72	15 17 19.22	26.22	27.23	15 16 59.1	60.0	0.1
10	B. D.+15° 851	9	28 5.44	0.12	35.64	5 27 29.68	5.74	15 52 51.95	58.15	26.47	15 52 32.5	32.7	+0.3
11	B. D.+13° 927	9	30 8.60	0.10	35.64	5 29 32.86	5.64	13 21 6.85	14.48	29.77	13 20 44.1	45.8	0.6
12	B. D.+14° 978	9	34 47.03	0.12	35.64	5 34 11.27	5.70	14 44 57.30	63.80	27.92	14 44 36.4	36.9	1.2
13	B. D.+14° 991	9	37 58.95	− 0.11	−35.64	5 37 23.20	5.67	14 8 10.62	16.75	28.74	+14 7 48.9	49.0	+1.6
14	B. D.+13° 971	9	40 5.23	− 0.11	−35.64	5 39 29.48	5.65	13 32 21.15	27.12	29.53	+13 31 58.6	58.6	+1.9
15	B. D.+12° 912	9	44 37.20	0.10	35.64	5 44 1.46	5.61	12 37 32.68	38.55	30.76	12 37 8.9	8.7	2.4
16	B. D.+12° 925	9	47 19.01	0.10	35.64	5 46 43.27	5.62	12 51 31.38	37.55	30.44	12 51 7.9	8.1	2.8
17	B. D.+11° 965	9	49 43.33	0.09	35.94	5 49 7.60	5.57	11 28 22.15	28.72	32.34	11 27 56.8	57.3	3.1
18	B. D.+12° 965	9	53 25.61	0.10	35.64	5 52 49.87	5.62	12 59 0.12	6.80	30.28	12 58 36.7	37.5	3.6
19	B. D.+12° 980	9	55 21.36	− 0.10	−35.64	5 54 45.62	5.61	12 36 41.42	47.08	30.79	+12 36 17.5	17.2	+3.8
20	B. D.+12° 994	9	57 42.87	− 0.10	−35.64	5 57 7.13	−5.61	12 40 35.18	42.30	30.71	+12 40 11.4	12.5	+4.1
21	B. D.+11° 1022	9	0 48.64	0.09	35.64	6 0 12.91	5.55	11 13 57.35	65.62	32.69	11 13 31.6	33.9	4.5
22	B. D.+12° 1032	9	3 48.51	0.10	35.64	6 3 12.77	5.59	12 18 2.35	8.78	31.22	12 17 38.0	38.5	4.9
23	η Geminorum........	9	9 32.28	0.18	**35.61**	6 8 56.46	5.98	22 32 15.62	20.12	18.32	22 32 4.1	2.7	6.3
24	μ Geminorum........	9	17 36.49	0.18	**35.67**	6 17 0.67	5.98	22 33 57.78	64.18	18.29	22 33 46.3	46.8	7.5
25	8 Monocerotis........	9	19 9.19	− 0.05	**−35.65**	6 18 33.50	−5.33	4 39 5.80	12.70	42.44	+4 38 30.3	31.2	+6.3

1900 DECEMBER 14. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
26	α Canum Venat.....	9	51 59.86	− 0.29	**−35.83**	12 51	....	38 51	.....	.....	38 51	.....	..
27	43 H. Cephei S. P......	9	55 52.58	+ 4.86	**36.11**	1 55	....	94 14 24.45	30.60	90.95	85 43 56.9	57.2	..
28	α Ursæ Minoris S. P..	9	24 6.77	−17.10	**35.40**	1 23	....	91 11 24.28	30.88	81.36	88 47 6.2	6.1	
29	η Bootis............	9	50 34.07	− 0.13	**−35.87**	13 49	....	18 53	.....	.....	18 53	.....	

1900 DECEMBER 15. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
30	π Andromedæ......	9	51 53.54	− 0.26	**−36.28**	0 51	....	37 57	.....	.....	37 57 ..		
31	43 H. Cephei........	9	56 1.32	4.24	**35.87**	0 55	....	85 42 44.18	51.18	65.78	85 43 55.8	56.5	
32	α Ursæ Minoris.....	9	24 37.83	14.91	**34.86**	1 23	....	88 45 47.09	53.98	73.17	88 47 5.7	6.5	
33	β Arietis...........	6	49 48.52	− 0.13	**−36.51**	1 49	....	20 19	.....	.....	20 19 ..		

1900 DECEMBER 16. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
34	π Andromedæ......	8	51 54.35	− 0.26	**[−37.10]**	0 51	....	37 57	.....	.	37 57		.
35	43 H. Cephei........	9	56 2.45	4.42	**[37.00]**	0 55	....	85 42 44.35	50.72	66.16	85 43 55.9	56.8	..
36	α Ursæ Minoris.....	9	24 39.84	15.55	**[36.00]**	1 23	....	88 45 47.31	53.74	73.47	88 47 5.7	6.7	
37	α Trianguli..........	9	45 5.43	0.19	**37.22**	1 47 25.01	−5.27	29 6 5.25	9.90	10.74	29 5 40.3	41.3	29.1
38	β Arietis............	9	49 49.27	− 0.13	**−37.27**	1 49 11.91	−5.[illegible]	20 19 50.90	56.20	20.86	20 19 35.9	35.5	26.7

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm	°	°
14 5 13	76.3[illegible]	−5.5	−7.2
5 33	.....	..	7.2
5 5[illegible]	.....		7.4
6 20	76.38	5.9	7.6
13 15	76.50	6.[illegible]	9.[illegible]
15 [illegible] 13	76.58	3.7	4.5
16 [illegible] 20	76.65	5.2	5.7
[illegible] 40	76.6[illegible]	−5.2	−5.4

Bisections are made at II and V, except as noted below.

27, 35. Bisection at IV.
28, 31, 32, 36. Bisections at c_1 and c_4.

Notes.
[illegible], seeing good.
[illegible], seeing fine.

[illegible] from stars

No.	a	b
	″	″
27	6.6	[illegible]
28	6.[illegible]	[illegible]
27	6.6	[illegible]
[illegible]	[illegible]	[illegible]
36	6.9	[illegible]

Adopted Equator Point Corrections.

		a	b
		″	″
1–25	from stars		
26 29	from stars	−6.[illegible]	[illegible]
30 32	from stars	−6.[illegible]	[illegible]
33 36	from stars	6.[illegible]	[illegible]
37 38	from stars	−6.7	[illegible]

* [illegible]

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	γ Andromedæ	9	58 28.89	−0.30	**−37.20**	1 57 51.35	−5.89	41 51 21.20	28.18	3.18	+41 51 30.1	31.5	−31.3
2	B. D. +37° 480	9	0 52.45	0.26	37.24	2 0 14.95	5.73	37 49 18.60	24.25	1.19	37 49 23.1	23.2	30.1
3	B. D. +37° 490	9	4 39.46	0.26	37.25	2 4 1.95	5.78	38 11 50.02	54.78	0.78	38 11 55.0	54.1	29.8
4	B. D. +36° 428	9	6 36.61	0.25	37.25	2 5 59.11	5.73	36 30 10.60	17.15	2.62	36 30 13.7	14.6	29.2
5	B. D. +37° 506	9	8 47.78	0.26	37.25	2 8 10.27	5.82	38 10 40.72	45.82	0.80	38 10 45.7	45.1	29.4
6	B. D. +36° 450	.	.. ..	....	.....	2 10	....	36 41 24.85	.....	2.42	36 41 28.2	....	28.8
7	B. D. +36° 464	9	15 40.82	−0.25	− .7.26	2 15 3.31	−5.82	36 37 10.58	16.50	2.50	+36 37 13.8	14.1	−28.3
8	B. D. +36° 473	9	18 20.02	−0.25	−37.26	2 17 42.51	−5.85	36 39 16.18	22.12	2.46	+36 39 19.5	19.8	−28.0
9	B. D. +36° 482	9	20 27.71	0.25	37.26	2 19 50.20	5.86	36 34 4.90	8.92	2.55	36 34 8.1	6.5	27.7
10	B. D. +35° 477	9	22 44.52	0.24	37.26	2 22 7.02	5.84	35 29 27.00	32.28	3.72	35 29 29.0	28.7	27.2
11	B. D. +33° 447	9	25 41.29	0.23	37.27	2 25 3.79	5.79	33 55 21.92	27.30	5.44	33 55 22.2	22.0	26.6
12	B. D. +34° 462	.	.. ..	....	.....	2 28	....	34 43 6.02	12.45	4.57	34 43 7.2	8.0	26.4
13	B. D. +33° 476	9	33 13.52	0.23	37.27	2 32 36.02	5.86	33 56 28.15	33.15	5.42	33 56 28.5	27.8	25.7
14	B. D. +34° 488	7	35 8.19	−0.23	−37.28	2 34 30.68	−5.92	34 51 53.72	59.88	4.41	+34 51 55.1	55.6	−25.6
15	B. D. +32° 490	9	37 21.78	−0.22	−37.28	2 36 44.28	−5.82	32 28 59.80	63.18	7.02	+32 28 58.5	56.3	−24.9
16	B. D. +32° 498	9	39 47.51	0.21	37.28	2 39 10.02	5.84	32 20 16.50	21.68	7.18	32 20 15.1	14.6	24.6
17	B. D. +31° 483	9	43 52.82	0.21	37.28	2 43 15.33	5.84	31 42 14.80	17.12	7.88	31 42 12.7	9.3	23.9
18	B. D. +32° 517	9	46 40.23	0.21	37.29	2 46 2.73	5.89	32 20 13.42	18.32	7.18	32 20 12.0	11.3	23.7
19	B. D. +31° 500	9	48 47.78	0.21	37.29	2 48 10.28	5.89	31 56 10.02	14.18	7.62	31 56 8.2	6.7	23.4
20	B. D. +30° 466	9	51 13.40	0.20	37.29	2 50 35.91	5.84	30 28 59.92	63.90	9.23	30 28 56.5	54.8	22.8
21	B. D. +30° 474	9	54 35.93	−0.20	−37.30	2 53 58.43	−5.85	30 12 54.42	58.22	9.53	+30 12 50.7	48.8	−22.3
22	B. D. +30° 479	9	56 50.18	−0.20	−37.30	2 56 12.68	−5.89	30 35 55.75	59.62	9.10	+30 35 52.4	50.6	−22.1
•23	B. D. +30° 484	9	59 34.79	0.20	37.30	2 58 57.29	5.91	30 39 20.38	25.70	9.04	30 39 17.1	16.8	21.8
24	B. D. +29° 522	9	1 31.51	0.20	37.30	3 0 54.01	5.90	30 8 55.02	58.25	9.60	30 8 51.2	48.8	21.4
25	B. D. +30° 494	7	4 26.42	0.20	37.30	3 3 48.92	5.96	31 1 23.45	28.00	8.63	31 1 20.6	19.5	21.2
26	B. D. +29° 534	9	6 37.66	0.19	37.31	3 6 0.16	5.90	29 27 40.08	44.45	10.36	29 27 35.5	34.2	20.6
27	ζ Arietis	9	9 52.11	0.13	**37.31**	3 9 14.67	5.56	20 40 58.38	64.88	20.49	20 40 43.7	44.5	18.5
28	B. D. +27° 488	9	11 45.41	−0.18	−37.31	3 11 7.92	−5.87	28 7 25.88	30.60	11.86	+28 7 19.8	18.9	−19.7
29	B. D. +27° 492	9	14 21.29	−0.18	−37.31	3 13 43.80	−5.85	27 11 7.70	14.15	12.92	+27 11 0.6	1.3	−19.2
30	B. D. +27° 501	9	17 41.38	0.18	37.32	3 17 3.88	5.88	27 20 9.80	14.18	12.74	27 20 2.9	1.6	18.8
31	B. D. +28° 532	9	21 14.75	0.18	37.32	3 20 37.25	5.94	28 22 24.52	28.15	11.57	28 22 18.7	16.7	18.5
32	B. D. +27° 513	9	25 41.71	0.18	37.32	3 25 4.21	5.92	27 23 20.95	25.70	12.68	27 23 14.1	13.1	17.8
33	B. D. +26° 574	9	30 2.60	0.17	37.33	3 29 25.10	6.01	26 31 24.22	28.58	13.66	26 31 16.4	15.0	17.0
34	B. D. +25° 584	9	34 12.41	0.16	37.33	3 33 34.92	5.90	25 48 30.30	34.58	14.47	25 48 21.7	20.2	16.3
35	B. D. +24° 534	8	36 26.31	−0.16	−37.33	3 35 48.82	−5.87	25 3	23.95	15.33	+25 3	8.7	−15.9
36	B. D. +25° 599	9	38 28.22	−0.17	−37.34	3 37 50.71	−5.93	26 4 12.52	19.02	14.17	+26 4 4.2	5.0	−15.8
37	B. D. +24° 553	9	40 40.26	0.16	37.34	3 40 2.76	5.86	24 14 56.70	63.35	16.26	24 14 46.3	47.2	15.2
38	B. D. +26° 617	9	43 0.02	0.17	37.34	3 42 22.51	5.96	26 17 13.05	17.60	13.92	26 17 4.9	3.8	15.2
39	B. D. +25° 624	9	45 1.53	0.16	37.34	3 44 24.03	5.93	25 17 4.18	9.20	15.06	25 16 54.9	54.3	14.8
40	B. D. +24° 587	9	46 55.99	0.16	37.34	3 46 18.49	5.92	24 52 24.62	29.98	15.53	24 52 14.9	14.6	14.5
41	B. D. +23° 584	9	49 47.92	0.15	37.35	3 49 10.42	5.88	23 40 10.85	16.60	16.93	23 39 59.7	59.8	13.9
42	B. D. +24° 599	9	52 11.00	−0.15	−37.35	3 51 33.50	−5.91	24 10 43.05	48.75	16.33	+24 10 32.5	32.5	−13.7
43	B. D. +24° 605	3	54 37.89	−0.16	−37.35	3 54 0.38	−5.93	24 25	11.50	16.05	+24 24	55.6	−13.4
44	B. D. +23° 606	9	58 32.36	0.15	37.35	3 57 54.86	5.93	24 7 54.80	61.05	16.38	24 7 44.3	44.8	12.8
45	B. D. +23° 617	9	1 23.03	0.15	37.35	4 0 45.53	5.90	23 15 14.90	21.30	17.41	23 15 3.3	4.0	12.3
46	B. D. +22° 637[2]	9	3 39.81	0.14	37.36	4 3 2.31	5.89	22 50 22.42	28.12	17.89	22 50 10.4	10.3	11.9
47	B. D. +22° 649	9	7 38.80	0.14	37.36	4 7 1.30	5.88	22 9 47.00	53.25	18.68	22 9 34.2	34.7	11.3
48	B. D. +21° 612	9	11 21.11	0.14	37.36	4 10 43.61	5.87	21 39 57.68	63.72	19.27	21 39 44.3	44.6	10.7
49	B. D. +21° 618	9	13 11.42	−0.14	−37.36	4 12 33.92	−5.86	21 20 29.45	36.15	19.66	+21 20 15.6	16.6	−10.4
50	γ Tauri	9	14 49.20	−0.10	**−37.37**	4 14 11.73	−5.64	15 23	.....	.....	+15 23	....	....
51	B. D. +20° 740	8	16 20.87	0.13	37.37	4 15 43.37	5.85	20 48 33.90	37.95	20.30	20 48 19.5	17.8	− 9.9
52	B. D. +20° 751	9	18 22.12	0.13	37.37	4 17 44.62	5.85	20 45 20.80	26.98	20.36	20 45 6.3	6.7	9.6
53	B. D. +19° 742	9	30 34.12	0.12	37.38	4 29 56.62	5.84	19 40 54.30	59.52	21.67	19 40 38.5	38.0	7.8
54	B. D. +20° 785	9	33 5.23	0.13	37.38	4 32 27.72	5.88	20 29 24.75	29.38	20.69	20 29 9.9	8.8	7.5
55	B D. +19° 755	9	36 25.88	−0.13	−37.38	4 35 48.37	−5.87	20 4 36.28	42.52	21.19	+20 4 20.9	21.5	− 7.0

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
16 2 25	.....	...	−6.0
2 31	76.63	−5.3	6.2
2 53	76.65	5.5	6.2
3 24	76.65	5.5	5.9
4 9	76.60	−5.5	5.6
4 35	.....	...	−5.8

Bisections are made at II and V, except as noted below.

6. Bisection at II.
14. Bisections at III and V.
35, 43. Bisection at V.

Notes.

27. Declination poor.
51. Observation poor.

Eq. Pt. Cor. from stars. No.	A.	B.
	″	″
1	+5.8	−1.0
27	+5.5	−0.7

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–55, from stars......	+4.7	−0.7

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+18° 717	9	40 58.42	−0.12	−37.39	4 40 20.91	−5.82	18 37 27.48	31.95	22.97	+18 37 10.4	9.1	−6.3
2	B. D.+17° 789	9	43 30.81	0.11	37.39	4 42 53.31	5.78	17 38 13.40	18.62	24.20	17 37 55.1	54.5	5.8
3	B. D.+17° 791	9	45 15.38	0.11	37.39	4 44 37.88	5.78	17 21 17.68	22.88	24.55	17 20 59.0	58.5	5.6
4	B. D.+18° 747	9	48 27.65	0.12	37.39	4 47 50.14	5.85	18 54 47.62	53.92	22.62	18 54 30.9	31.4	5.2
5	π^5 Orionis..........	6	49 45.23	0.02	**37.42**	4 49 7.82	5.26	2 17	.....	.....	2 17	....	...
6	B. D.+16° 671	9	51 45.08	0.10	37.40	4 51 7.58	5.76	16 35 1.18	6.22	25.53	16 34 41.5	40.8	4.6
7	B. D.+16° 679	9	54 50.17	−0.11	−37.40	4 54 12.66	−5.76	16 41 4.72	11.22	25.41	+16 40 45.2	45.9	−4.2
8	ι Tauri..............	9	57 50.56	−0.14	−**37.37**	4 57 13.02	−5.97	21 27 8.22	13.70	19.56	+21 26 54.5	54.3	−4.0
9	B. D.+18° 777	9	59 43.64	0.12	37.40	4 59 6.12	5.83	18 7 15.50	19.78	23.62	18 6 57.7	56.3	3.6
10	B. D.+16° 697	9	1 58.04	0.11	37.40	5 1 20.53	5.78	16 42 4.10	7.85	25.40	16 41 44.6	42.6	3.2
11	B. D.+17° 862	9	5 35.31	0.11	37.40	5 4 57.80	5.81	17 19 13.50	19.02	24.63	17 18 54.7	54.5	2.8
12	B. D.+16° 732	6	8 11.71	0.11	37.41	5 7 34.19	5.79	16 46 15.32	19.65	25.32	16 45 55.7	54.3	2.4
13	B. D.+15° 769	9	10 25.35	0.10	37.41	5 9 47.84	5.74	15 31 18.98	25.40	26.92	15 30 57.9	58.6	2.0
14	B. D.+15° 789	9	15 1.78	−0.10	−37.41	5 14 24.27	−5.76	16 1 28.95	33.72	26.27	+16 1 8.6	7.6	−1.4
15	B. D.+15° 799	9	17 21.52	−0.10	−37.41	5 16 44.01	−5.76	16 1 53.65	59.98	26.27	+16 1 33.3	33.9	−1.1
16	B. D.+15° 813	9	20 53.96	0.10	37.42	5 20 16.44	5.74	15 22 13.68	19.12	27.12	15 21 52.5	52.1	0.6
17	B. D.+15° 826	9	22 44.10	0.10	37.42	5 22 6.58	5.76	15 47 42.38	49.25	26.58	15 47 21.6	22.6	−0.4
18	B. D.+15° 837	9	25 25.97	0.10	37.42	5 24 48.45	5.74	15 17 20.78	26.65	27.23	15 16 59.4	59.6	0.0
19	B. D.+14° 947	9	28 56.43	0.09	37.42	5 28 18.92	5.70	14 14 31.35	36.80	28.61	14 14 8.6	8.3	+0.5
20	B. D.+14° 958	9	31 29.27	0.09	37.42	5 30 51.76	5.71	14 35 59.72	65.50	28.14	14 35 37.5	37.5	0.8
21	B. D.+14° 978	9	34 48.79	−0.09	−37.42	5 34 11.28	−5.72	14 44 57.68	63.88	27.94	+14 44 35.6	36.1	+1.3
22	B. D.+14° 991	9	38 0.73	−0.09	−37.43	5 37 23.21	−5.70	14 8 11.25	16.28	28.76	+14 7 48.4	47.7	+1.7
23	B. D.+13° 971	9	40 6.98	0.09	37.43	5 39 29.46	5.68	13 32 21.70	27.00	29.55	13 31 58.0	57.6	2.0
24	B. D.+12° 899	9	42 35.03	0.08	37.43	5 41 57.52	5.63	12 13 38.82	45.10	31.31	12 13 13.4	13.9	2.3
25	B. D.+12° 912	9	44 39.07	0.08	37.43	5 44 1.56	5.64	12 37 34.05	39.45	30.77	12 37 9.2	8.8	2.6
26	B. D.+11° 965	9	49 45.06	0.08	37.43	5 49 7.55	5.60	11 28 23.18	29.35	32.35	11 27 56.7	57.1	3.2
27	B. D.+12° 965	9	53 27.35	0.08	37.44	5 52 49.83	5.65	12 59 1.00	6.75	30.30	12 58 36.6	36.6	3.8
28	B. D.+12° 980	9	55 23.13	−0.08	−37.44	5 54 45.61	−5.64	12 36 41.42	47.22	30.81	+12 36 16.5	16.5	+4.0
29	B. D.+12° 994	9	57 44.65	−0.08	−37.44	5 57 7.13	−5.63	12 40 36.38	41.78	30.73	+12 40 11.5	11.2	+4.3
30	B. D.+11° 1022	9	0 50.48	0.07	37.44	6 0 12.97	5.58	11 13 57.98	64.60	32.70	11 13 31.2	32.1	4.6
31	B. D.+12° 1032	9	3 50.38	0.08	37.44	6 3 12.86	5.62	12 18 2.25	9.08	31.24	12 17 36.9	38.0	5.1
32	η Geminorum.......	9	9 34.10	0.14	**37.43**	6 8 56.52	6.02	22 32 14.95	19.10	18.33	22 32 2.5	0.9	6.3
33	μ Geminorum.......	9	17 38.27	0.14	**37.45**	6 17 0.68	6.02	22 33 58.92	65.70	18.30	22 33 46.5	47.5	7.5
34	8 Monocerotis	9	19 11.01	−0.04	−**37.46**	6 18 33.52	−5.35	4 39 8.00	14.20	42.47	+ 4 38 31.5	31.9	+6.6

1900 DECEMBER 18. CLAMP WEST.

LITTELL, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
35	α Trianguli.........	9	48 7.37	−0.06	−**39.31**	1 47 27.96	−5.25	29 6 3.30	8.40	10.33	+29 5 60.1	58.6	−29.1
36	β Arietis	9	49 51.30	0.04	**39.40**	1 49 11.90	5.02	20 19 48.95	56.45	20.08	20 19 36.0	36.9	26.7
37	γ Andromedæ	7	58 30.84	0.10	**39.37**	1 57 51.37	5.87	41 51 20.58	28.15	3.06	41 51 30.6	31.6	31.4
38	B. D.+38° 413	9	3 6.69	0.09	39.37	2 2 27.23	5.78	38 55 41.52	48.68	0.01	38 55 48.6	49.1	30.3
39	B. D.+38° 423	9	5 26.84	−0.08	−39.38	2 4 47.38	−5.77	38 14 16.60	24.78	0.71	+38 14 22.9	24.5	−29.9
40	B. D.+37° 505	9	8 37.75	−0.08	−39.38	2 7 58.29	−5.79	37 56 44.40	50.95	1.02	+37 56 50.4	50.3	−29.5
41	B. D.+36° 450	9	11 12.47	0.08	39.38	2 10 33.01	5.76	36 41 24.32	30.10	2.33	36 41 29.0	28.2	28.9
42	B. D.+36° 458	9	13 18.16	0.08	39.38	2 12 38.70	5.78	36 36 41.65	49.52	2.41	36 36 46.3	47.4	28.6
43	B. D.+36° 465	9	15 55.27	0.08	39.38	2 15 15.81	5.82	36 58 16.75	23.50	2.03	36 58 21.8	21.8	28.4
44	B. D.+36° 470	9	17 58.42	−0.08	−39.39	2 17 18.95	−5.85	37 6 40.28	45.80	1.89	+37 6 45.4	44.2	−28.3
45	B. D.+36° 478	9	19 55.13	−0.08	−39.39	2 19 15.66	−5.85	36 40 22.12	29.68	2.34	+36 40 26.7	27.6	−27.9
46	B. D.+36° 491	9	21 54.07	0.08	39.39	2 21 14.60	5.86	36 31 23.92	31.72	2.50	36 31 28.3	29.5	27.7
47	B. D.+35° 480	9	23 36.37	0.08	39.39	2 22 56.90	5.82	35 13 38.52	43.50	3.86	35 13 41.6	39.9	27.2
48	B. D.+33° 447	9	25 43.22	0.07	39.39	2 25 3.76	5.78	33 55 20.58	27.70	5.23	33 55 22.3	22.8	26.6
49	B. D.+34° 457	7	27 14.43	−0.07	−39.39	2 26 34.97	−5.83	34 49	48.95	4.28	+34 49	45.0	−26.7

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
16 5 4	76.62	−5.6	−6.2
5 33	.....	...	6.7
6 21	76.53	−6.4	−7.2
18 1 45	75.93	+2.7	+2.0

Bisections are made at II and V, except as noted below.

12.	Bisections at IV and VI.
17.	Bisections at III and VI.
23, 47.	Bisections at III and V.
49.	Bisection at V.

Note.

43. Faint companion following.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–34, from stars......	+4.7	−0.7
35–49, from stars......	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
8	+3.9	−1.3
32	5.0	+1.2
33	4.8	−1.6
34	4.1	−1.7
35	5.3	+0.5
36	6.1	1.1
37	+6.7	−0.7

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+33° 462	9	29 16.30	−0.07	−39.40	2 28 36.83	−5.79	33 28 56.98	64.58	5.70	+33 28 58.3	59.2	−26.1
2	B. D.+33° 476	9	33 15.46	0.07	39.40	2 32 35.99	5.84	33 56 26.28	33.72	5.21	33 56 28.0	28.8	25.8
3	B. D.+34° 488	9	35 10.08	0.08	39.40	2 34 30.60	5.90	34 51 52.05	60.50	4.24	34 51 54.8	56.5	25.8
4	B. D.+32° 490	9	37 23.76	0.07	39.40	2 36 44.29	5.81	32 28 57.58	63.82	6.75	32 28 57.8	57.3	25.0
5	B. D.+33° 512	9	42 12.74	0.07	39.41	2 41 33.26	5.88	33 13 26.12	31.92	5.97	33 13 27.1	26.2	24.6
6	B. D.+31° 483	9	43 54.86	0.07	39.41	2 43 15.38	5.83	31 42 11.05	17.45	7.58	31 42 10.4	10.1	24.0
7	B. D.+32° 517	9	46 42.14	−0.07	−39.41	2 46 2.66	−5.88	32 20 11.22	17.98	6.91	+32 20 11.2	11.3	−23.8
8	B. D.+31° 500	9	48 49.69	−0.07	−39.41	2 48 10.21	−5.88	31 56 8.15	13.88	7.33	+31 56 7.7	6.8	−23.5
9	B. D.+30° 466	9	51 15.39	0.06	39.41	2 50 35.92	5.83	30 28 59.55	64.98	8.88	30 28 57.6	56.3	22.9
10	B. D.+30° 474	9	54 37.87	0.06	39.42	2 53 58.39	5.84	30 12 52.20	58.78	9.17	30 12 49.9	49.8	22.4
11	B. D.+30° 479	.	.. ..	....	.....	2 56	....	30 35 55.30	59.28	8.76	30 35 53.4	50.6	22.2
12	B. D.+29° 519	7	0 26.51	0.06	39.42	2 59 47.03	5.88	30 8 41.38	46.95	9.24	30 8 39.0	37.8	21.6
13	B. D.+28° 499	9	4 20.94	0.06	39.42	3 3 41.46	5.85	28 42 8.45	13.65	10.79	28 42 4.6	3.0	20.8
14	B. D.+29° 534	9	6 39.64	−0.06	−39.43	3 6 0.15	−5.90	29 27 39.32	44.50	9.98	+29 27 36.2	34.6	−20.7
15	ζ Arietis	9	9 54.12	−0.04	**−39.42**	3 9 14.65	−5.55	20 40 57.62	64.10	19.74	+20 40 44.8	44.5	−18.5
16	B. D.+27° 488	9	11 47.48	0.06	39.43	3 11 7.99	5.87	28 7 24.00	30.35	11.42	28 7 19.4	19.0	19.8
17	B. D.+28° 517	9	15 22.34	0.06	39.43	3 14 42.85	5.91	28 28 21.30	27.10	11.04	28 28 17.1	16.2	19.4
18	B. D.+27° 501	9	17 43.45	0.06	39.43	3 17 3.96	5.87	27 20 8.55	15.15	12.28	27 20 3.1	2.9	18.9
19	B. D.+28° 526	9	19 30.93	0.06	39.43	3 18 51.44	5.92	28 18 21.88	27.45	11.23	28 18 17.5	16.2	18.8
20	B. D.+28° 532	9	21 16.72	0.06	39.43	3 20 37.23	5.94	28 22 23.10	28.02	11.16	28 22 18.7	16.9	18.6
21	B. D.+27° 513	9	25 43.69	−0.06	−39.44	3 25 4.19	−5.92	27 23 18.82	25.20	12.23	+27 23 13.4	13.0	−17.8
22	B. D.+26° 574	9	30 4.64	−0.06	−39.44	3 29 25.14	−6.01	26 31 22.52	28.88	13.17	+26 31 16.2	15.7	−17.1
23	B. D.+25° 584	9	34 14.47	0.05	39.44	3 33 34.98	5.90	25 48 28.00	34.00	13.96	25 48 20.9	20.1	16.4
24	B. D.+24° 533	9	36 5.62	0.05	39.44	3 35 26.13	5.86	24 41 27.98	36.30	15.20	24 41 19.6	21.1	16.0
25	B. D.+25° 599	9	38 30.26	0.06	39.44	3 37 50.76	5.93	26 4 11.62	18.30	13.67	26 4 4.7	4.5	15.9
26	B. D.+24° 553	9	40 42.24	0.05	39.44	3 40 2.75	5.86	24 14 55.10	63.65	15.69	24 14 46.1	47.9	15.3
27	B. D.+24° 571	9	42 53.41	0.05	39.44	3 42 13.92	5.89	24 41 10.78	17.82	15.21	24 41 2.3	2.5	15.0
28	B. D.+25° 624	9	45 3.51	−0.05	−39.45	3 44 24.01	−5.93	25 17 2.58	9.05	14.54	+25 16 54.8	54.4	−14.8
29	B. D.+24° 587	9	46 57.88	−0.05	−39.45	3 46 18.38	−5.92	24 52 22.60	29.48	15.00	+24 52 14.3	14.4	−14.5
30	B. D.+23° 584	9	49 49.93	0.05	39.45	3 49 10.43	5.88	23 40 8.28	16.45	16.35	23 39 58.7	60.0	13.9
31	B. D.+24° 598	9	51 56.48	0.05	39.45	3 51 16.98	5.94	24 59 52.85	59.82	14.86	24 59 44.7	44.9	13.9
32	B. D.+23° 600	9	53 51.79	0.05	39.45	3 53 12.29	5.88	23 20 50.78	59.05	16.71	23 20 40.8	42.3	13.3
33	B. D.+22° 617¹	9	55 45.73	0.05	39.45	3 55 6.23	5.87	22 55 34.88	42.32	17.19	22 55 24.4	25.1	13.0
34	B. D.+23° 606	9	58 34.34	0.05	39.45	3 57 54.84	5.94	24 7 53.40	61.18	15.83	24 7 44.3	45.2	12.8
35	B. D.+23° 617	9	1 25.07	−0.05	−39.45	4 0 45.57	−5.91	23 15 13.75	21.50	16.82	+23 15 3.6	4.5	−12.3
36	B. D.+22° 637¹	9	3 41.67	−0.05	−39.45	4 3 2.17	−5.90	22 50 15.58	23.08	17.29	+22 50 4.9	5.6	−11.9
37	B. D.+20° 751	9	18 24.06	0.04	39.46	4 17 44.56	5.86	20 45 17.95	26.45	19.68	20 45 4.9	6.6	9.6
38	B. D.+20° 754	9	20 38.91	0.04	39.46	4 19 59.41	5.87	20 54 52.05	60.12	19.50	20 54 39.2	40.4	9.3
39	B. D.+20° 760	9	23 29.69	0.04	39.46	4 22 50.19	5.87	20 36 57.45	64.80	19.84	20 36 44.3	44.7	8.9
40	B. D.+19° 733	9	26 8.13	0.04	39.46	4 25 28.63	5.85	19 55 25.22	31.90	20.65	19 55 11.2	11.0	8.4
41	B. D.+19° 735	9	27 55.63	−0.04	−39.46	4 27 16.13	−5.82	19 8 33.30	40.60	21.57	+19 8 18.3	18.8	−8.1
42	B. D.+19° 742	9	30 36.12	−0.04	−39.46	4 29 56.62	-5.85	19 40 52.48	59.05	20.94	+19 40 38.1	37.8	−7.8
43	B. D.+20° 785	9	33 7.25	−0.04	−39.46	4 32 27.75	−5.89	20 29 22.08	29.10	19.99	20 29 8.6	8.8	7.5
44	B. D.+19° 755	.	.. ..	....	.....	4 35	....	20 4 33.68	40.70	20.47	20 4 19.8	20.0	7.0
45	B. D.+18° 717	.	.. ..	....	.....	4 40	....	18 37 24.35	31.20	22.19	18 37 8.7	8.6	6.2
46	B. D.+17° 789	.	.. ..	....	.....	4 42	....	17 38 11.38	17.32	23.38	17 37 54.6	53.6	5.8
47	B. D.+17° 791	.	.. ..	....	.....	4 44	....	17 21 14.70	22.30	23.71	+17 20 57.6	58.2	−5.5
48	B. D.+18° 747	.	.. ..	....	.....	4 47	....	18 54 45.42	52.52	21.85	+18 54 30.1	30.3	−5.2
49	π^5 Orionis...........	9	49 47.29	−0.01	**−39.48**	4 49 7.81	−5.27	2 17 18.52	26.80	44.60	2 16 40.5	41.7	3.6
50	B. D.+16° 679	9	54 52.16	0.04	39.47	4 54 12.65	5.78	16 41 3.32	9.28	24.53	16 40 45.3	44.2	4.2
51	B. D.+16° 685	9	56 53.81	0.04	39.47	4 56 14.30	5.78	16 41 34.72	41.40	24.52	16 41 16.7	16.5	3.8
52	B. D.+18° 777	9	59 45.69	0.04	39.47	4 59 6.18	5.85	18 7 13.68	18.98	22.80	18 6 57.3	55.8	3.6
53	B. D.+16° 697	9	2 0.02	−0.04	−39.47	5 1 20.51	−5.79	16 42 1.52	8.12	24.52	+16 41 43.5	43.2	−3.2
54	B. D.+15° 752	9	4 43.73	−0.03	−39.47	5 4 4.23	−5.74	15 28 32.38	39.60	26.03	+15 28 12.8	13.1	−2.7
55	B. D.+15° 759	9	6 42.19	0.03	39.47	5 6 2.69	5.77	15 55 41.00	48.08	25.47	15 55 22.0	22.1	2.5
56	B. D.+16° 732	9	8 13.76	0.04	39.47	5 7 34.25	5.80	16 46 14.35	19.45	24.43	16 45 56.4	54.6	2.3
57	B. D.+15° 769	9	10 27.42	0.03	39.47	5 9 47.92	5.76	15 31 17.52	25.25	25.97	15 30 58.0	58.8	1.9
58	B. D.+15° 779	9	12 10.29	0.03	39.47	5 11 30.79	5.74	15 9 35.20	42.82	26.42	15 9 15.3	15.9	1.7
59	B. D.+15° 789	9	15 3.93	−0.03	−39.47	5 14 24.43	−5.78	16 1 26.22	34.05	25.35	+16 1 7.3	8.2	−1.3

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
18 2 31	75.91	2.3	1.4
3 13	75.88	2.0	1.0
3 31	.....	...	0.8
4 22	.....	...	0.5
4 35	75.84	1.5	0.4

Bisections are made at II and V, except as noted below.

49. Bisections at III and VI.
50. Bisections at II and VI.

Note.
12. Clouds.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–59, from stars......	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
15	+5.5	−0.7
49	+6.0	−1.8

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+15° 799	9	17 23.52	−0.03	−39.47	5 16 44.02	−5.78	16 1 53.88	59.98	25.35	+16 1 35.0	34.2	− 1.0
2	B. D.+15° 813	9	20 56.02	0.03	39.47	5 20 16.52	5.76	15 22 13.40	18.62	26.16	15 21 53.6	52.0	0.5
3	B. D.+14° 917	8	22 55.03	0.03	39.48	5 22 15.52	5.74	14 56 9.80	17.35	26.71	14 55 49.5	50.2	− 0.2
4	B. D.+14° 934	9	26 38.47	0.03	39.48	5 25 58.96	5.74	14 51 30.70	38.35	26.79	14 51 10.3	11.0	+ 0.3
5	B. D.+14° 947	9	28 58.49	0.03	39.48	5 28 18.98	5.72	14 14 29.82	36.95	27.57	14 14 8.6	8.8	0.6
6	B. D.+14° 958	7	31 31.31	0.03	39.48	5 30 51.80	5.74	14 35 57.52	64.92	27.11	14 35 36.8	37.2	1.0
7	B. D.+14° 973	9	34 11.18	−0.03	−39.48	5 33 31.67	−5.73	14 30 15.40	24.18	27.23	+14 29 54.6	56.4	+ 1.3
8	B. D.+13° 954	7	36 35.96	−0.03	−39.48	5 35 56.45	−5.68	13 6 9.38	16.88	29.02	+13 5 46.8	47.3	+ 1.7
9	B. D.+13° 971	9	40 8.98	0.03	39.48	5 39 29.47	5.70	13 32 19.45	27.92	28.44	13 31 57.4	58.9	2.1
10	B. D.+12° 899	9	42 37.03	0.03	39.48	5 41 57.52	5.65	12 13 36.65	43.30	30.14	12 13 12.9	12.6	2.5
11	B. D.+12° 912	9	44 41.03	0.03	39.48	5 44 1.52	5.66	12 37 32.00	39.02	29.62	12 37 8.7	8.7	2.8
12	B. D.+12° 925	9	47 22.84	0.03	39.48	5 46 43.33	5.67	12 51 29.30	37.58	29.31	12 51 6.3	7.4	3.1
13	B. D.+11° 965	9	49 47.04	0.03	39.48	5 49 7.53	5.62	11 28 20.50	27.90	31.11	11 27 55.7	56.1	3.4
14	B. D.+12° 965	9	53 29.42	−0.03	−39.48	5 52 49.91	−5.67	12 58 57.50	66.35	29.13	+12 58 34.7	36.6	+ 3.9
15	B. D.+12° 980	9	55 25.18	−0.03	−39.48	5 54 45.67	−5.66	12 36 37.90	46.12	29.62	+12 36 14.6	15.8	+ 4.2
16	B. D.+12° 994	9	57 46.73	0.03	39.48	5 57 7.22	5.66	12 40 33.85	40.88	29.54	12 40 10.6	10.7	4.4
17	B. D.+11° 1032	9	2 48.69	0.03	39.48	6 2 9.18	5.60	11 1 30.40	37.68	31.72	11 1 5.0	5.3	5.1
18	η Geminorum.......	9	9 36.09	0.05	**39.48**	6 8 56.56	6.05	22 32 13.88	20.38	17.62	22 32 2.5	2.0	6.4
19	μ Geminorum.......	9	17 40.23	0.05	**39.47**	6 17 0.70	6.05	22 33 57.62	64.55	17.59	22 33 46.2	46.2	7.6
20	8 Monocerotis	9	19 13.04	−0.01	−**39.49**	6 18 33.55	−5.38	4 39 6.08	13.10	40.82	+ 4 38 31.5	31.5	+ 6.9

1900 DECEMBER 18. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
21	α Canum Venat.....	9	52 3.71	−0.13	−**39.69**	12 51	....	38 51	.....	.....	+38 51	....	....
22	43 H. Cephei S. P....	9	55 58.38	+2.12	**40.15**	0 55	....	94 14 29.10	36.55	87.02	85 43 56.8	56.6	....
23	20 Canum Venat.....	9	13 45.89	−0.14	**39.65**	13 13	....	41 5 13.60	20.25	2.28	41 5 23.0	22.2	....
24	α Ursæ Minoris S. P..	9	24 17.34	+7.46	−**39.28**	1 23	....	91 11 26.59	34.26	77.77	+88 47 8.1	7.7	....

1900 DECEMBER 19. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
25	μ Andromedæ	9	51 57.08	+0.11	[−**40.25**]	0 51	....	37 57	.....	.....	+37 57	....	....
26	43 H. Cephei	9	55 58.57	1.92	[**40.27**]	0 55	....	85 42 47.70	56.08	61.69	85 43 56.6	56.8	....
27	α Ursæ Minoris	9	24 19.27	6.07	[**40.18**]	1 23	....	88 45 51.85	60.06	68.69	88 47 7.3	7.3	....
28	α Trianguli.........	9	48 8.18	0.06	**40.25**	1 47 27.93	−5.24	29 6 1.90	10.10	10.06	29 5 60.4	59.8	−29.1
29	β Arietis	9	49 52.19	0.04	**40.38**	1 49 11.92	5.01	20 19 46.20	55.65	19.56	20 19 35.3	35.9	26.7
30	γ Andromedæ	9	58 31.56	0.10	**40.30**	1 57 51.35	5.86	41 51 19.70	28.10	2.99	41 51 31.2	30.9	31.5
31	B. D.+38° 418	9	3 43.67	+0.09	−40.31	2 3 3.45	−5.79	39 7 26.78	34.95	0.21	+39 7 35.4	35.0	−30.3
32	B. D.+38° 425	9	5 34.72	+0.09	−40.31	2 4 54.50	−5.78	38 34 25.98	33.80	0.35	+38 34 34.0	33.2	−30.0
33	B. D.+37° 506	9	8 50.43	0.09	40.31	2 8 10.21	5.80	38 10 37.55	45.45	0.76	38 10 45.2	44.5	29.6
34	B. D.+36° 450	9	11 13.16	0.08	40.31	2 10 32.93	5.75	36 41 22.60	30.50	2.27	36 41 28.8	28.0	29.0
35	B. D.+37° 518	9	12 35.19	0.09	40.31	2 11 54.97	5.81	37 37 50.80	58.68	1.31	37 37 57.9	57.2	29.0
36	B. D.+36° 465	9	15 56.00	0.08	40.31	2 15 15.77	5.81	36 58 16.05	23.78	1.99	36 58 22.4	21.6	28.5
37	B. D.+36° 473	9	18 22.75	0.08	40.31	2 17 42.52	5.82	36 39 14.05	21.52	2.31	36 39 20.1	19.0	28.2
38	B. D.+35° 480	9	23 37.12	+0.08	−40.31	2 22 56.89	−5.81	35 13 35.45	43.52	3.77	+35 13 40.0	39.6	−27.2
39	B. D.+34° 457	9	27 15.27	+0.08	−40.31	2 26 35.04	−5.82	34 49 40.35	49.05	4.18	+34 49 44.5	44.7	−26.7
40	B. D.+33° 462	9	29 17.03	0.07	40.31	2 28 36.79	5.78	33 28 55.85	63.82	5.57	33 28 58.7	58.0	26.2
41	B. D.+33° 476	9	33 16.21	0.08	40.31	2 32 35.98	5.84	33 56 25.48	32.82	5.09	33 56 28.6	27.5	25.8
42	B. D.+34° 488	9	35 10.91	0.08	40.31	2 34 30.68	5.90	34 51 51.82	61.12	4.14	34 51 55.9	56.8	25.8
43	B. D.+32° 490	9	37 24.46	0.07	40.31	2 36 44.22	5.80	32 28 56.35	63.65	6.59	32 28 58.0	56.9	25.0
44	B. D.+31° 477	9	41 5.09	0.07	40.31	2 40 24.85	5.80	31 34 52.75	59.75	7.51	31 34 53.5	52.0	24.4
45	B. D.+31° 483	9	43 55.64	0.07	40.31	2 43 15.40	5.82	31 42 11.22	17.55	7.38	31 42 12.1	10.0	24.1
46	B. D.+32° 522	9	48 20.89	+0.07	−40.31	2 47 40.65	−5.90	32 30 55.88	63.50	6.56	+32 30 57.5	56.7	−23.7

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
18 5 19	75.79	+0.9	0.0
5 46	.....	...	+0.4
5 51	75.77	0.7	0.6
6 21	75.78	+0.8	+0.4
13 25	75.89	−0.7	−0.6
14 1	75.90	0.0	−0.2
19 1 6	75.91	+8.7	+9.7
1 44	75.90	8.5	9.2
2 26	75.90	+8.0	+7.3

Bisections are made at II and V, except as noted below.

12.	Bisections at II and VI.
22, 26.	Bisection at IV.
24, 27.	Bisections at c_1 and c_5.

Notes.

5, 10, 18.	Seeing somewhat diffuse.
32.	Companion north.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–20, from stars	*	*
22–24, from nadir........	+6.12	−1.16
26–27, from nadir........	+6.25	−2.00
28–46, from stars	*	−1.0

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
18	+5.7	−0.9
19	5.3	1.3
20	4.1	2.5
28	6.5	1.4
29	8.3	0.8
30	+7.7	−0.5

NO.	NAME.	THDS.	MEAN THREAD.	C_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+30° 466	9	51 16.16	+0.06	−40.31	2 50 35.91	−5.83	30 28 58.95	65.00	8.64	+30 28 58.5	56.2	−22.9
2	B. D.+30° 474	9	54 38.69	0.06	40.31	2 53 58.44	5.84	30 12 52.55	58.60	8.92	30 12 51.8	49.5	22.4
3	B. D.+30° 479	9	56 52.88	0.06	40.31	2 56 12.63	5.87	30 35 54.68	59.72	8.52	30 35 54.3	51.0	22.2
4	B. D.+30° 482	9	59 17.71	0.07	40.31	2 58 37.47	5.91	30 55 34.70	40.85	8.18	30 55 34.7	32.5	22.0
5	B. D.+28° 493	9	2 2.55	0.06	40.31	3 1 22.30	5.83	28 44 39.12	46.05	10.45	28 44 36.9	35.4	21.2
6	B. D.+30° 494	9	4 29.08	0.07	40.31	3 3 48.84	5.95	31 1 21.95	28.55	8.08	31 1 22.0	20.3	21.4
7	B. D.+29° 534	9	6 40.36	+0.06	−40.31	3 6 0.11	−5.89	29 27 37.35	43.48	9.70	+29 27 35.8	33.6	−20.8
8	ζ Arietis	9	9 54.92	+0.04	**−40.30**	3 9 14.65	−5.55	20 40 55.48	64.12	19.19	+20 40 44.4	44.8	−18.5
9	B. D.+27° 488	9	11 48.19	0.06	40.31	3 11 7.94	5.86	28 7 24.50	30.32	11.10	28 7 21.5	19.0	19.8
10	B. D.+28° 517	7	15 23.10	0.06	40.30	3 14 42.86	5.90	28 28 20.40	26.68	10.74	28 28 17.8	15.8	19.4
11	B. D.+27° 501	9	17 44.14	0.06	40.30	3 17 3.90	5.87	27 20 7.20	14.72	11.94	27 20 3.4	2.6	18.9
12	B. D.+28° 532	9	21 17.50	0.06	40.30	3 20 37.26	5.94	28 22 22.62	28.55	10.84	28 22 19.9	17.5	18.6
13	B. D.+26° 566	9	25 46.91	0.06	40.30	3 25 6.67	5.89	26 46 37.78	44.45	12.54	26 46 33.3	31.7	17.7
14	B. D.+27° 525	9	30 6.99	+0.06	−40.30	3 29 26.75	−5.93	27 11 50.42	56.90	12.10	+27 11 46.3	44.6	−17.2
15	B. D.+25° 584	8	34 15.33	+0.05	−40.30	3 33 35.08	−5.90	25 48 27.30	34.75	13.60	+25 48 21.7	21.0	−16.4
16	B. D.+24° 533	9	36 6.46	0.05	40.30	3 35 26.21	5.86	24 41 26.80	36.75	14.81	24 41 20.0	21.8	16.0
17	B. D.+25° 598	9	38 24.82	0.05	40.30	3 37 44.57	5.92	25 48 51.52	58.58	13.61	25 48 45.9	44.8	15.9
18	B. D.+24° 553	9	40 43.00	0.05	40.30	3 40 2.75	5.86	24 14 55.28	63.65	15.31	24 14 47.9	48.2	15.3
19	B. D.+24° 571	8	42 54.09	0.05	40.30	3 42 13.84	5.89	24 41 9.50	17.92	14.85	24 41 2.6	2.9	15.1
20	B. D.+25° 624	9	45 4.34	0.05	40.30	3 44 24.09	5.93	25 17 1.30	8.82	14.20	25 16 55.0	54.4	14.9
21	B. D.+24° 587	9	46 58.72	+0.05	−40.30	3 46 18.47	−5.91	24 52 21.80	29.78	14.66	+24 52 15.1	14.9	−14.6
22	B. D.+23° 584	9	49 50.74	+0.05	−40.30	3 49 10.49	−5.88	23 40 6.50	15.75	15.99	+23 39 58.4	59.6	−13.9
23	ε Persei	9	51 55.42	0.09	**40.25**	3 51 15.21	6.77	39 43 23.15	30.98	0.82	39 43 31.8	31.6	16.1
24	B. D.+24° 605	9	54 40.67	0.05	40.30	3 54 0.42	5.93	24 25 2.88	11.82	15.18	24 24 55.6	56.5	13.4
25	ν Tauri	9	58 35.80	0.01	**40.38**	3 57 55.51	5.26	5 43 23.95	31.62	38.44	5 42 53.5	53.0	9.8
26	B. D.+23° 624	9	3 38.67	0.05	40.30	4 2 58.42	5.93	23 36 40.58	48.00	16.10	23 36 32.3	31.7	12.0
27	B. D.+23° 642	9	7 12.64	0.05	40.30	4 6 32.39	5.94	23 19 21.35	29.68	16.41	23 19 12.8	13.1	11.5
28	B. D.+22° 657	9	9 19.74	+0.04	−40.30	4 8 39.48	−5.89	22 12 17.05	23.72	17.64	+22 12 7.3	5.9	−11.1
29	B. D.+21° 612	9	11 23.94	+0.04	−40.30	4 10 43.68	−5.88	21 39 54.62	61.62	18.23	+21 39 44.2	43.2	−10.7
30	B. D.+20° 731	9	13 53.27	0.04	40.30	4 13 13.01	5.86	21 3 44.02	53.58	18.91	21 3 32.9	34.5	10.3
31	B. D.+20° 740	9	16 23.58	0.04	40.30	4 15 43.32	5.86	20 48 30.18	37.60	19.19	20 48 18.8	18.2	9.9
32	B. D.+21° 639	9	18 52.26	0.04	40.30	4 18 12.00	5.89	21 18 49.22	56.08	18.61	21 18 38.4	37.3	9.6
33	B. D.+21° 644	9	21 9.02	0.04	40.30	4 20 28.76	5.89	21 14 56.65	65.88	18.67	21 14 45.7	47.0	9.3
34	B. D.+20° 760	9	23 30.51	0.04	40.30	4 22 50.25	5.87	20 36 56.25	64.28	19.37	20 36 44.6	44.7	9.1
35	B. D.+19° 755	9	36 28.70	+0.04	−40.30	4 35 48.44	−5.89	20 4 33.12	40.75	19.94	+20 4 20.8	20.6	− 7.0
36	B. D.+19° 777	9	41 30.26	+0.04	−40.30	4 40 50.00	−5.87	19 19 3.82	10.95	20.78	+19 18 50.7	50.0	− 6.2
37	B. D.+17° 789	9	43 33.64	0.03	40.30	4 42 53.37	5.80	17 38 10.82	17.82	22.73	17 37 55.8	54.9	5.8
38	B. D.+17° 791	9	45 18.22	0.03	40.30	4 44 37.95	5.80	17 21 14.65	20.90	23.05	17 20 59.3	57.7	5.5
39	B. D.+18° 747	9	48 30.43	0.04	40.30	4 47 50.17	5.86	18 54 44.18	52.12	21.23	18 54 30.5	30.7	5.2
40	π⁵ Orionis	7	49 48.11	0.00	**40.31**	4 49 7.81	5.27	2 17	.....	.....	2 17	....	...
41	B. D.+16° 671	9	51 47.94	0.03	40.30	4 51 7.67	5.78	16 34 57.82	65.92	23.97	16 34 41.4	41.8	4.5
42	ι Tauri	9	57 53.32	+0.04	**−40.29**	4 57 13.06	−5.99	21 27 4.70	12.52	18.38	+21 26 53.9	54.0	− 4.0
43	B. D.+16° 697	7	2 0.91	+0.03	−40.30	5 1 20.64	−5.80	16 42 0.98	6.78	23.87	+16 41 44.7	42.8	− 3.1
44	B. D.+17° 862	9	5 38.11	0.03	40.30	5 4 57.84	5.83	17 19 10.60	17.82	23.16	17 18 54.9	54.5	2.7
45	B. D.+16° 742	9	12 6.16	0.03	40.30	5 11 25.89	5.80	16 14 49.85	57.42	24.45	16 14 32.9	32.8	1.7
46	B. D.+14° 881	9	15 39.38	0.03	40.30	5 14 59.11	5.75	14 57 47.12	54.22	26.02	14 57 28.6	28.0	1.2
47	B. D.+15° 805	9	18 32.82	0.03	40.30	5 17 52.55	5.79	15 57 2.45	10.22	24.83	15 56 45.1	45.2	0.8
48	B. D.+15° 822	9	22 16.83	+0.03	−40.30	5 21 36.56	−5.76	15 10 36.60	44.20	25.78	15 10 18.2	18.3	− 0.2
49	B. D.+14° 933	.	.. ..	....	.....	5 25	....	14 34 25.15	33.58	26.54	+14 34 6.0	6.9	+ 0.4
50	B. D.+15° 856	.	.. ..	....	.....	5 28	....	15 31 12.02	20.42	25.39	+15 30 54.0	54.9	+ 0.6
51	B. D.+14° 978	.	.. ..	....	.....	5 34	....	14 44 54.05	62.05	26.34	14 44 35.1	35.6	1.5
52	B. D.+14° 991	.	.. ..	....	.....	5 37	....	14 8 7.20	15.28	27.11	14 7 47.4	48.0	1.9
53	B. D.+12° 884	.	.. ..	....	.....	5 39	....	12 51 2.38	10.15	28.73	12 50 40.9	41.3	2.2
54	B. D.+12° 896	.	.. ..	....	.....	5 41	....	12 18 28.15	.....	29.42	12 18 6.0	....	2.5
55	B. D.+12° 912	.	.. ..	....	.....	5 43	....	12 37 29.98	37.95	29.02	+12 37 8.3	8.8	+ 2.8

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
19 2 53	.....	...	8.6
3 23	75.90	7.5	8.6
4 2	.....	...	5.8
4 47	.....	...	8.2
5 25	75.87	6.6	6.6

Bisections are made at II and V, except as noted below.

10, 16. Bisections at III and V.
54. Bisection at II.

Notes.

15, 16, 35. Poor; faint.
22. Very poor; clouds.'
46, 47. Clouds.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–55, from stars......	*	−1.0

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
8	+7.1	−1.3
23	6.8	0.8
25	6.0	1.2
42	+6.2	−1.3

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec \delta + n \tan \delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+11° 960	.	.. ..	....	.....	5 47	....	11 47 58.08	65.72	30.10	+11 47 35.3	35.5	+ 3.3
2	B. D.+12° 950	.	.. ..	....	.....	5 50	....	12 59 21.78	30.10	28.58	12 59 0.5	1.4	3.6
3	B. D.+12° 968	.	.. ..	....	.....	5 53	....	12 48 12.85	20.70	28.82	12 47 51.2	51.7	4.0
4	B. D.+11° 1009	.	.. ..	....	.....	5 57	....	11 41 16.08	22.78	30.27	+11 40 53.0	52.4	+ 4.6
5	ν Orionis...........	.	.. ..	....	.....	6 1	....	14 47 3.82	11.22	26.36	+14 46 44.6	44.7	+ 5.3
6	η Geminorum......	.	.. ..	....	.....	6 8	....	22 32 13.18	19.50	17.31	22 32 3.0	2.0	6.4
7	μ Geminorum.......	.	.. ..	....	.....	6 16	....	22 33 56.22	64.08	17.29	22 33 46.0	46.6	7.6
8	8 Monocerotis	.	.. ..	....	.....	6 18	....	4 39 3.62	11.42	40.13	+ 4 38 30.4	31.0	+ 7.0

1900 DECEMBER 20. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec \delta + n \tan \delta$.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
9	μ Andromedæ......	9	51 57.72	+0.09	[−**40.88**]	0 51	....	37 57	.....	.....	+37 57	....	....
10	43 H. Cephei	9	55 59.08	1.66	[**40.77**]	0 55	....	85 42 48.18	55.48	62.79	85 43 56.6	57.0	....
11	α Ursæ Minoris.....	9	24 19.78	5.54	[**40.92**]	1 23	....	88 45 51.34	58.78	70.03	88 47 6.5	7.1	....
12	α Trianguli..........	9	48 8.81	0.06	**40.89**	1 47 27.95	−5.23	29 6 3.05	9.72	10.26	29 5 59.7	59.1	−29.2
13	β Arietis	9	49 52.77	0.04	**40.97**	1 49 11.89	5.00	20 19 48.98	56.75	19.95	20 19 35.9	36.4	26.6
14	γ Andromedæ	9	58 32.12	0.09	**40.87**	1 57 51.29	5.84	41 51 21.80	29.10	3.05	41 51 31.5	31.6	31.6
15	B. D.+38° 418	9	3 44.24	+0.08	−40.92	2 3 3.40	−5.78	39 7 29.00	35.68	0.21	+39 7 35.9	35.4	−30.4
16	B. D.+38° 425	6	5 35.35	+0.08	−40.92	2 4 54.51	−5.77	38 34 28.50	35.70	0.36	+38 34 34.8	34.4	−30.1
17	B. D.+37° 506	9	8 51.03	0.08	40.92	2 8 10.19	5.79	38 10 39.50	46.10	0.77	38 10 45.4	44.7	29.6
18	B. D.+36° 450	9	11 13.78	0.07	40.92	2 10 32.93	5.74	36 41 24.62	32.78	2.31	36 41 28.9	29.9	29.0
19	B. D.+37° 518	9	12 35.73	0.07	40.92	2 11 54.88	5.80	37 37 52.60	59.15	1.34	37 37 57.9	57.2	29.1
20	B. D.+36° 465	9	15 56.57	0.07	40.92	2 15 15.72	5.80	36 58 17.88	23.82	2.02	36 58 22.5	21.2	28.6
21	B. D.+36° 473	9	18 23.32	0.07	40.92	2 17 42.47	5.82	36 39 16.10	22.55	2.35	36 39 20.4	19.6	28.2
22	B. D.+36° 482	9	20 30.93	+0.07	−40.92	2 19 50.08	−5.83	36 34 5.68	12.45	2.44	+36 34 9.8	9.3	−28.0
23	B. D.+35° 480	9	23 37.71	+0.06	−40.92	2 22 56.85	−5.80	35 13 37.85	44.88	3.84	+35 13 40.6	40.3	−27.3
24	B. D.+34° 454	9	26 49.91	0.06	40.92	2 26 9.05	5.78	34 14 35.42	42.92	4.87	34 14 37.1	37.3	26.7
25	B. D.+33° 461	9	28 59.24	0.06	40.92	2 28 18.38	5.76	33 21 38.55	43.08	5.79	33 21 39.3	36.6	26.2
26	B. D.+33° 476	9	33 16.79	0.06	40.92	2 32 35.93	5.83	33 56 28.28	33.35	5.18	33 56 29.7	27.4	25.9
27	B. D.+34° 488	9	35 11.48	0.06	40.92	2 34 30.62	5.89	34 51 54.02	62.48	4.22	34 51 56.2	57.5	25.9
28	B. D.+33° 494	9	38 3.37	+0.06	−40.92	2 37 22.51	−5.86	33 45 18.48	24.85	5.38	+33 45 19.6	18.7	−25.3
29	B. D.+31° 477	7	41 5.68	+0.05	−40.92	2 40 24.81	−5.79	31 34 53.78	60.52	7.66	+31 34 52.6	52.1	−24.4
30	B. D.+31° 483	9	43 56.25	0.05	40.92	2 43 15.38	5.82	31 42 12.98	18.38	7.53	31 42 11.9	10.1	24.1
31	B. D.+32° 522	9	48 21.51	0.05	40.92	2 47 40.64	5.89	32 30 57.78	64.90	6.70	32 30 57.5	57.3	23.8
32	B. D.+31° 509	9	51 59.72	0.05	40.92	2 51 18.85	5.87	31 32 19.95	25.45	7.71	31 32 18.6	16.9	23.1
33	B. D.+30° 474	9	54 39.29	0.05	40.92	2 53 58.42	5.84	30 12 54.12	59.18	9.11	30 12 51.4	49.2	22.5
34	B. D.+29° 517	9	58 25.88	+0.05	−40.92	2 57 45.01	−5.86	30 7 33.22	38.98	9.21	+30 7 30.4	28.9	−22.0
35	B. D.+29° 519	9	0 27.88	+0.04	−40.92	2 59 47.00	−5.88	30 8 42.25	47.55	9.19	+30 8 39.5	37.4	−21.7
36	B. D.+30° 494	9	4 29.77	0.05	40.92	3 3 48.90	5.94	31 1 24.15	29.58	8.26	31 1 22.2	20.3	21.4
37	B. D.+29° 534	9	6 41.01	0.04	40.92	3 6 0.13	5.89	29 27 39.48	45.68	9.92	29 27 35.9	34.8	20.8
38	ζ Arietis	9	9 55.57	0.03	**40.94**	3 9 14.68	5.55	20 40 57.70	64.55	19.62	20 40 44.4	44.0	18.5
39	B. D.+27° 488	9	11 48.88	0.04	40.92	3 11 8.00	5.86	28 7 26.92	31.65	11.36	28 7 21.9	19.2	19.8
40	B. D.+28° 517	9	15 23.73	+0.04	−40.92	3 14 42.85	−5.90	28 28 22.50	28.28	10.98	+28 28 17.7	16.2	−19.5
41	B. D.+27° 501	9	17 44.79	+0.04	−40.92	3 17 3.91	−5.87	27 20 9.18	14.85	12.21	+27 20 3.2	1.6	−18.9
42	B .D.+28° 532	9	21 18.14	0.04	40.92	3 20 37.26	5.93	28 22 24.20	29.00	11.09	28 22 19.3	16.8	18.7
43	B. D.+26° 566	9	25 47.56	0.03	40.92	3 25 6.67	5.89	26 46 40.02	45.65	12.82	26 46 33.4	31.6	17.8
44	B. D.+27° 525	9	30 7.57	0.04	40.92	3 29 26.69	5.93	27 11 51.58	58.75	12.36	27 11 45.3	45.2	17.3
45	B. D.+24° 533	9	36 6.99	0.03	40.92	3 35 26.10	5.86	24 41 28.88	36.60	15.11	24 41 19.9	20.3	16.0
46	B. D.+25° 598	9	38 25.43	+0.03	−40.92	3 37 44.54	−5.92	25 48 53.02	59.42	13.87	+25 48 45.3	44.4	−15.9

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
19 6 32	75.84	6.0	4.8
20 1 20	75.57	4.4	3.2
2 14	75.60	3.5	2.0
3 2	.....	...	1.5

Bisections are made at II and V, except as noted below.

8. Bisections at IV and VI.
10. Bisection at IV.
11. Bisections at c_1 and c_5.
13, 22. Bisections at III and V.
16. Bisections at III and VI.

Notes.

10. Seeing 3–4.
12–46. Seeing 3.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
5	+5.8	−1.3
6	5.7	0.3
7	6.4	1.1
8	6.0	1.5
12	5.6	0.8
13	5.9	1.6
14	5.7	1.4
38	+5.3	−1.3

Adopted Equator Point Corrections.

	A. ″	B. ″
1–8, from stars.......	*	−1.0
10, 11, from nadir......	+4.60	−2.25
12–46, from stars.......	*	*

*Interpolated from diagram.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+24° 553	9	40 43.68	+0.03	−40.92	3 40 2.79	−5.86	24 14 56.98	64.88	15.60	+24 14 47.5	48.0	−15.3
2	B. D.+24° 571	9	42 54.80	0.03	40.92	3 42 13.91	5.89	24 41 10.88	19.58	15.12	24 41 1.9	3.2	15.1
3	B. D.+25° 624	9	45 4.96	0.03	40.92	3 44 24.07	5.93	25 17 2.88	9.70	14.46	25 16 54.5	54.0	14.9
4	B. D.+24° 587	9	46 59.28	0.03	40.92	3 46 18.39	5.92	24 52 24.18	30.75	14.91	24 52 15.3	14.6	14.6
5	B. D.+23° 584	9	49 51.28	0.02	40.92	3 49 10.38	5.88	23 40 10.15	17.52	16.25	23 39 59.9	60.0	14.0
6	ε Persei...........	9	51 56.13	0.05	**40.92**	3 51 15.26	6.77	39 43 25.50	32.68	0.84	39 43 32.3	32.2	16.2
7	B. D.+23° 600	9	53 53.19	+0.02	−40.92	3 53 12.29	−5.88	23 20 52.40	60.02	16.61	+23 20 41.8	42.0	−13.4
8	B. D.+22° 617¹	9	55 47.17	+0.02	−40.92	3 55 6.27	−5.87	22 55 35.60	42.68	17.09	+22 55 24.5	24.2	−13.0
9	B. D.+23° 606	9	58 35.72	0.02	40.92	3 57 54.82	5.94	24 7 54.62	62.45	15.74	24 7 44.9	45.3	12.8
10	B. D.+22° 629	9	0 14.05	0.02	40.92	3 59 33.15	5.89	22 54 8.25	14.78	17.11	22 53 57.1	56.3	12.4
11	B. D.+22° 637¹	9	3 43.13	0.02	40.93	4 3 2.22	5.90	22 50 16.98	23.62	17.19	22 50 5.7	5.0	11.9
12	B. D.+21° 601	9	6 0.92	0.02	40.93	4 5 20.01	5.86	21 37 51.32	58.15	18.56	21 37 38.7	38.2	11.4
13	B. D.+22° 654	9	8 49.12	0.02	40.93	4 8 8.21	5.91	22 27 34.30	42.95	17.62	22 27 22.6	23.9	11.2
14	B. D.+21° 612	9	11 24.49	+0.02	−40.93	4 10 43.58	−5.88	21 39 56.20	63.28	18.52	+21 39 43.6	43.3	−10.7
15	B. D.+20° 731	9	13 53.88	+0.02	−40.93	4 13 12.97	−5.86	21 3 47.00	55.20	19.22	+21 3 33.6	34.5	−10.2
16	B. D.+20° 740	9	16 24.19	0.02	40.93	4 15 43.28	5.86	20 48 32.32	39.78	19.51	20 48 18.7	18.8	9.9
17	B. D.+21° 639	9	18 52.80	0.02	40.93	4 18 11.89	5.89	21 18 50.70	57.70	18.93	21 18 37.6	37.2	9.6
18	B. D.+21° 644	9	21 9.53	0.02	40.93	4 20 28.62	5.90	21 14 59.95	66.92	19.01	21 14 46.8	46.3	9.3
19	B. D.+20° 760	9	23 31.09	0.02	40.93	4 22 50.18	5.88	20 36 59.32	65.25	19.73	20 36 45.4	44.0	8.9
20	B. D.+19° 759	9	36 38.06	0.02	40.93	4 35 57.15	5.88	19 54 5.88	12.45	20.57	19 53 51.1	50.3	6.9
21	B. D.+19° 777	9	41 30.90	+0.01	−40.93	4 40 49.98	−5.87	19 19 6.05	12.02	21.26	+19 18 50.6	49.2	− 6.2
22	B. D.+17° 789	8	43 34.28	+0.01	−40.93	4 42 53.36	−5.81	17 38 12.65	18.95	23.26	+17 37 55.1	54.1	− 5.7
23	B. D.+17° 797	9	46 50.04	0.01	40.93	4 46 9.12	5.81	17 31 38.15	45.48	23.39	17 31 20.4	20.5	5.3
24	π⁵ Orionis...........	.	.. ..	....	.....	4 49	....	2 17 18.92	27.02	44.39	2 16 40.3	41.1	3.3
25	B. D.+16° 671	9	51 48.57	0.01	40.93	4 51 7.65	5.78	16 34 59.88	66.88	24.54	16 34 41.0	40.8	4.5
26	B. D.+16° 685	9	56 55.21	0.01	40.93	4 56 14.29	5.80	16 41 35.55	40.98	24.42	16 41 16.7	15.0	3.8
27	B. D.+16° 688	9	59 4.56	0.01	40.93	4 58 23.64	5.81	16 59 27.48	32.75	24.06	16 59 9.0	7.1	3.5
28	B. D.+16° 700	9	2 58.12	+0.01	−40.93	5 2 17.20	−5.81	16 51 13.72	20.95	24.23	+16 50 55.1	55.2	− 3.0
29	B. D.+17° 862	9	5 38.72	+0.01	−40.93	5 4 57.80	−5.84	17 19 13.00	18.70	23.66	+17 18 54.9	53.5	− 2.6
30	B. D.+16° 732	9	8 15.12	0.01	40.93	5 7 34.20	5.82	16 46 14.30	19.88	24.33	16 45 55.6	54.0	2.2
31	B. D.+15° 779	9	12 11.69	0.01	40.93	5 11 30.77	5.76	15 9 37.15	43.38	26.31	15 9 16.3	15.5	1.6
32	B. D.+15° 789	9	15 5.29	0.01	40.93	5 14 24.37	5.80	16 1 26.70	33.68	25.25	16 1 6.9	6.9	1.2
33	B. D.+15° 799	9	17 24.88	0.01	40.93	5 16 43.96	5.80	16 1 55.35	61.05	25.24	16 1 35.6	34.2	0.9
34	B. D.+15° 813	9	20 57.44	+0.01	−40.93	5 20 16.52	−5.78	15 22 14.72	20.25	26.06	+15 21 54.1	52.6	− 0.4
35	B. D.+14° 917	9	22 56.45	+0.01	−40.93	5 22 15.53	−5.76	14 56 11.10	18.52	26.61	+14 55 50.0	50.4	− 0.1
36	B. D.+14° 934	9	26 39.93	0.00	40.93	5 25 59.00	5.76	14 51 32.60	39.55	26.70	14 51 11.3	11.3	+ 0.4
37	B. D.+14° 948	9	29 6.22	0.00	40.93	5 28 25.29	5.75	14 25 36.85	42.98	27.25	14 25 15.0	14.2	0.8
38	B. D.+14° 958	9	31 32.74	0.00	40.93	5 30 51.81	5.76	14 35 59.35	65.48	27.03	14 35 37.7	36.9	1.1
39	B. D.+14° 978	9	34 52.24	0.00	40.93	5 34 11.31	5.76	14 44 56.62	63.80	26.84	14 44 35.2	35.4	1.5
40	B. D.+13° 964	9	38 10.24	0.00	−40.93	5 37 29.31	−5.70	13 6 10.30	15.82	28.94	+13 5 46.8	45.3	+ 2.0
41	B. D.+13° 971	9	40 10.43	0.00	−40.93	5 39 29.50	−5.72	13 32 20.42	27.30	28.37	+13 31 57.3	57.4	+ 2.3
42	B. D.+12° 899	8	42 38.48	0.00	40.93	5 41 57.55	5.67	12 13 37.00	44.12	30.07	12 13 12.2	12.5	2.6
43	B. D.+13° 988	8	44 32.00	0.00	40.93	5 43 51.07	5.73	13 53 42.70	49.55	27.92	13 53 20.1	20.1	2.8
44	B. D.+12° 927	9	47 36.77	0.00	40.93	5 46 55.84	5.67	12 18 42.18	49.75	29.96	12 18 17.5	18.2	3.3
45	B. D.+12° 946	9	50 24.59	0.00	40.93	5 49 43.66	5.69	12 52 58.22	65.05	29.21	12 52 34.3	34.3	3.6
46	B. D.+12° 965	9	53 30.84	0.00	−40.93	5 52 49.91	−5.70	12 59 0.12	6.88	29.09	+12 58 36.2	36.2	+ 4.0
47	B. D.+12° 980	9	55 26.62	0.00	−40.93	5 54 45.69	−5.69	12 36 40.00	46.70	29.57	+12 36 15.6	15.6	+ 4.3
48	B. D.+11° 1005	9	57 55.89	0.00	40.93	5 57 14.96	5.63	11 5 54.90	61.25	31.56	11 5 28.6	28.1	4.6
49	B. D.+11° 1032	8	2 50.05	0.00	40.93	6 2 9.12	5.62	11 1 31.48	38.38	31.66	11 1 5.0	5.2	5.2
50	η Geminorum	9	9 37.51	+0.01	**40.94**	6 8 56.59	6.07	22 32 15.15	20.05	17.59	22 32 2.6	0.9	6.4
51	μ Geminorum	9	17 41.70	0.00	**40.96**	6 17 0.76	6.08	22 33 59.28	66.75	17.56	22 33 46.8	46.7	7.6
52	8 Monocerotis	9	19 14.47	0.00	−**40.91**	6 18 33.53	−5.40	4 39 5.78	13.42	40.74	+ 4 38 30.2	30.2	+ 7.1

1900 DECEMBER 21. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

53	α Ursæ Minoris	9	24 27.34	−1.65	[−**42.10**]	1 23	....	88 45 50.91	57.18	70.63	+88 47 7.7	6.9	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
20 3 44	.....	...	1.1
3 48	75.53	2.3	...
4 35	75.54	2.0	0.8
4 54	.....	...	0.5
5 33	75.57	1.3	0.2
6 5	75.50	1.1	0.0
21 1 18	75.33	0.6	0.1

Bisections are made at II and V, except as noted below.

53. Bisections at c_1 and c_5.

Notes.
1–52. Seeing 3.
26, 43. Faint.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–52, from stars........	*	*
53, from nadir.......	+5.63	−1.42

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
6	+4.5	−2.4
24	5.0	2.7
50	4.0	0.6
51	3.6	3.5
52	+4.1	−3.1

NO.		NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
									A.	B.		A.	B.	
				m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α	Trianguli.........	9	48 9.38	−0.02	**−41.39**	1 47 27.93	−5.22	29 6 4.32	9.28	10.34	+29 5 60.0	59.6	−29.2
2	β	Arietis............	9	49 53.30	0.02	**41.45**	1 49 11.85	4.99	20 19 50.25	55.58	20.10	20 19 36.2	36.1	26.5
3	γ	Andromedæ	9	58 32.82	0.04	**41.46**	1 57 51.35	5.83	41 51 21.65	27.72	3.07	41 51 30.6	31.4	31.6
4		B. D.+38° 418	9	3 44.80	0.04	41.43	2 3 3.33	5.76	39 7 28.48	34.75	0.21	39 7 34.6	35.5	30.4
5		B. D.+36° 427	9	6 12.45	0.04	41.43	2 5 30.98	5.69	36 53 17.68	22.48	2.12	36 53 21.5	20.9	29.6
6		B. D.+37° 506	9	8 51.72	0.04	41.43	2 8 10.25	5.78	38 10 39.40	46.00	0.77	38 10 44.6	45.7	29.7
7		B. D.+37° 518	9	12 36.36	−0.04	−41.43	2 11 54.89	−5.79	37 37 52.88	57.75	1.34	+37 37 57.5	56.9	−29.1
8		B. D.+36° 465	9	15 57.24	−0.04	−41.43	2 15 15.77	−5.79	36 58 17.92	23.50	2.03	+36 58 21.8	22.0	−28.6
9		B. D.+36° 482	9	20 31.57	0.04	41.43	2 19 50.10	5.82	36 34 6.18	12.05	2.46	36 34 9.6	10.1	28.0
10		B. D.+35° 480	9	23 38.39	0.04	41.43	2 22 56.92	5.79	35 13 37.62	43.28	3.86	35 13 39.6	39.9	27.3
11		B. D.+34° 454	9	26 50.53	0.04	41.43	2 26 9.06	5.78	34 14 35.98	42.78	4.89	34 14 37.0	38.3	26.7
12		B. D.+34° 462	9	29 0.10	0.04	41.43	2 28 18.63	5.82	34 43 7.05	13.60	4.39	34 43 8.5	9.6	26.6
13		B. D.+34° 469	9	30 29.81	0.04	41.43	2 29 48.34	5.81	34 15 30.58	38.02	4.88	34 15 31.6	33.5	26.3
14		B. D.+34° 483	9	33 28.46	−0.04	−41.43	2 32 46.99	−5.86	34 50 45.50	53.78	4.26	+34 50 47.1	49.9	−26.1
15		B. D.+34° 492	9	35 38.99	−0.04	−41.43	2 34 57.52	−5.86	34 24 51.40	58.12	4.72	+34 24 52.5	53.8	−25.8
16		B. D.+33° 494	9	38 4.06	0.04	41.43	2 37 22.59	5.85	33 45 17.55	24.32	5.41	33 45 18.0	19.3	25.3
17		B. D.+31° 477	9	41 6.30	0.04	41.43	2 40 24.83	5.78	31 34 54.48	60.58	7.71	31 34 52.6	53.3	24.4
18		B. D.+32° 507	9	43 48.48	0.04	41.43	2 43 7.01	5.86	32 45 57.90	64.15	6.46	32 45 57.3	58.1	24.4
19		B. D.+31° 493	.	.. ..	....	.....	2 44	....	31 57 28.02	32.72	7.31	31 57 26.6	25.8	24.0
20		B. D.+32° 522	.	.. ..	....	.....	2 47	....	32 30 58.22	64.78	6.74	32 30 57.4	58.4	23.8
21		B. D.+30° 477	9	55 0.81	−0.04	−41.43	2 54 19.34	−5.86	30 44 5.95	11.48	8.62	+30 44 3.1	3.2	−22.6
22		B. D.+29° 517	9	58 26.49	−0.04	−41.43	2 57 45.02	−5.85	30 7 35.10	38.55	9.27	+30 7 31.6	29.6	−22.0
23		B. D.+29° 519	9	0 28.45	0.04	41.43	2 59 46.98	5.87	30 8 42.60	47.68	9.25	30 8 39.1	38.7	21.8
24		B. D.+29° 531	9	5 1.12	0.04	41.43	3 4 19.65	5.87	29 17 31.95	36.38	10.17	29 17 27.6	26.5	21.0
25		B. D.+30° 503	9	7 38.19	0.04	41.43	3 6 56.72	5.94	30 29 2.80	7.85	8.89	30 28 59.7	59.3	20.9
26	ζ	Arietis	9	9 56.09	0.02	**41.42**	3 9 14.64	5.54	20 40 58.22	64.22	19.76	20 40 44.3	44.8	18.4
27		B. D.+28° 511	9	11 49.22	−0.04	−41.43	3 11 7.75	−5.87	28 23 50.50	56.05	11.14	28 23 45.2	45.2	19.9
28	ξ	Tauri..............	.	.. ..	....	.....	3 21	....	9 23 46.00	53.42	33.98	+ 9 23 17.9	19.7	−14.5
29		B. D.+26° 566	.	.. ..	....	.....	3 25	....	26 46 40.30	44.38	12.92	+26 46 33.1	31.7	−17.8
30		B D.+27° 525	9	30 8.12	−0.04	−41.43	3 29 26.65	−5.93	27 11 52.88	57.62	12.46	27 11 46.1	45.4	17.3
31		B. D.+25° 580	9	31 57.27	0.04	41.43	3 31 15.80	5.87	25 40 27.38	34.15	14.13	25 40 19.0	20.2	16.8
32		B. D.+26° 590	9	34 17.06	0.04	41.43	3 33 35.59	5.94	26 54 11.05	17.28	12.78	26 54 4.0	4.7	16.7
33		B. D.+24° 533	9	36 7.54	0.03	41.43	3 35 26.08	5.86	24 41 29.30	36.68	15.22	24 41 19.8	21.7	16.0
34		B. D.+25° 599	9	38 32.17	0.04	41.43	3 37 50.70	5.93	26 4 13.02	18.60	13.69	26 4 5.0	5.0	15.9
35		B. D.+25° 607	9	40 20.39	−0.04	−41.43	3 39 38.92	−5.90	25 18 14.08	21.05	14.54	+25 18 5.3	6.6	−15.6
36		B. D.+24° 568	9	42 34.46	−0.04	−41.43	3 41 52.99	−5.90	25 5 2.50	8.85	14.79	+25 4 53.4	54.2	−15.2
37		B. D.+24° 583	9	46 13.04	0.04	41.43	3 45 31.57	5.91	24 52 2.62	9.48	15.02	24 51 53.3	54.6	14.7
38		B. D. +25° 641	9	48 20.53	0.04	41.43	3 47 39.06	5.95	25 23 32.20	38.78	14.44	25 23 23.5	24.5	14.5
39		B. D.+23° 586	9	50 38.16	0.03	41.43	3 49 56.70	5.88	23 32 33.50	39.42	16.51	23 32 22.7	23.0	13.8
40	ε	Persei............	9	51 56.71	0.07	**41.88**	3 51 15.21	6.77	39 43 24.28	30.60	0.84	39 43 30.7	31.5	16.3
41		B. D.+23° 600	9	53 53.74	0.03	41.43	3 53 12.28	5.88	23 20 51.72	59.50	16.73	23 20 40.7	42.9	13.4
42		B. D.+22° 617[1]	9	55 47.74	−0.03	−41.43	3 55 6.28	−5.87	22 55 36.32	41.70	17.21	+22 55 24.8	24.6	−13.0
43		B. D.+22° 629	9	0 14.58	−0.03	−41.43	3 59 33.12	−5.89	22 54 9.35	13.95	17.23	+22 53 57.9	56.7	−12.4
44	43	Tauri.............	9	4 7.56	0.03	**41.41**	4 3 26.10	5.77	19 21 8.08	13.82	21.34	19 20 52.4	52.5	11.2
45		B. D.+21° 601	9	6 1.48	0.03	41.43	4 5 20.02	5.86	21 37 51.02	57.38	18.69	21 37 38.0	38.7	11.4
46		B. D.+22° 657	9	9 20.93	0.03	41.43	4 8 39.47	5.90	22 12 19.88	24.92	18.03	22 12 7.5	6.9	11.0
47		B. D.+21° 612	9	11 25.03	0.03	41.43	4 10 43.57	5.88	21 39 56.50	62.48	18.65	21 39 43.5	43.9	10.7
48		B. D.+20° 731	9	13 54.45	0.03	41.43	4 13 12.99	5.87	21 3 47.65	54.40	19.35	21 3 33.9	35.1	10.2
49		B. D.+20° 740	9	16 24.76	−0.03	−41.43	4 15 43.30	−5.87	20 48 32.22	38.10	19.64	+20 48 18.2	18.5	− 9.9
50		B. D.+21° 639	9	18 53.42	−0.03	−41.43	4 18 11.96	−5.90	21 18 50.65	57.82	19.06	+21 18 37.2	38.8	− 9.6
51		B. D.+21° 644	9	21 10.19	0.03	41.43	4 20 28.73	5.90	21 15 0.30	6.50	19.13	21 14 46.8	47.4	9.3
52		B. D.+20° 760	9	23 31.68	0.03	41.43	4 22 50.22	5.88	20 36 58.85	65.88	19.87	20 36 44.6	45.9	8.9
53		B. D.+19° 733	9	26 10.13	0.03	41.43	4 25 28.67	5.86	19 55 26.18	32.40	20.68	19 55 11.2	11.7	8.4
54		B. D.+19° 736	9	28 19.04	0.03	41.43	4 27 37.58	5.85	19 36 30.42	35.45	21.05	19 36 15.0	14.3	8.1
55	α	Tauri	9	30 58.13	0.03	**41.47**	4 30 16.67	5.74	16 18 55.78	62.10	25.01	16 18 36.5	37.0	7.1
56		B. D.+20° 785	9	33 9.19	−0.03	−41.43	4 32 27.73	−5.90	20 29 23.10	29.30	20.02	+20 29 8.7	9.2	− 7.5

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
21 1 45	75.37	+0.5	−0.1
2 25	75.40	0.0	0.3
3 24	75.40	−0.7	1.2
3 58	.....	...	−1.2
4 8	75.39	−1.0	...

Bisections are made at II and V, except as noted below.

49. Bisections at III and V.

Note.

15. Fainter companion n. p.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–56, from stars......	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+4.4	−0.3
2	4.6	0.4
3	5.8	0.1
26	4.8	0.9
28	[3.9]	[3.2]
40	5.9	0.2
44	4.6	0.8
55	+5.1	−0.8

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+19° 759	9	36 38.68	−0.03	−41.43	4 35 57.22	−5.89	19 54 5.98	12.15	20.71	+19 53 50.9	51.4	− 6.9
2	B. D.+19° 777	9	41 31.47	0.03	41.43	4 40 50.01	5.88	19 19 5.45	11.65	21.39	19 18 49.6	50.2	6.2
3	B. D.+18° 734	9	43 38.11	0.03	41.43	4 42 56.65	5.85	18 32 57.40	61.90	22.31	18 32 40.6	39.5	5.8
4	B. D.+17° 797	9	46 50.58	0.03	41.43	4 46 9.12	5.82	17 31 40.10	45.15	23.54	17 31 22.1	21.4	5.2
5	π^5 Orionis	9	49 49.28	0.00	**41.47**	4 49 7.85	5.28	2 17 20.05	26.22	44.66	2 16 41.0	41.4	3.2
6	B. D.+16° 671	9	51 49.09	0.03	41.43	4 51 7.63	5.79	16 35 1.12	6.78	24.69	16 34 42.0	41.9	4.5
7	B. D.+16° 685	9	56 55.74	−0.03	−41.43	4 56 14.28	−5.80	16 41 35.18	41.60	24.56	+16 41 16.2	16.9	− 3.8
8	B. D.+16° 688	9	59 5.11	−0.03	−41.43	4 58 23.65	−5.82	16 59 28.52	33.32	24.20	+16 59 9.9	9.0	− 3.5
9	B. D.+16° 700	9	2 58.61	0.03	41.43	5 2 17.15	5.82	16 51 15.05	20.15	24.37	16 50 56.3	55.6	3.0
10	B. D.+16° 715	9	5 51.67	0.03	41.43	5 5 10.21	5.80	16 18 56.20	61.82	25.03	16 18 36.8	36.6	2.5
11	B. D.+16° 732	9	8 15.71	0.03	41.43	5 7 34.25	5.83	16 46 15.88	19.75	24.47	16 45 57.0	55.1	2.2
12	B. D.+15° 769	9	10 29.36	0.03	41.43	5 9 47.90	5.78	15 31 18.60	25.80	26.02	15 30 58.2	59.6	1.8
13	B. D.+15° 779	9	12 12.21	0.03	41.43	5 11 30.75	5.77	15 9 36.95	42.78	26.48	15 9 16.1	16.1	1.5
14	B. D.+15° 787	9	14 42.07	−0.03	−41.43	5 14 0.61	−5.79	15 41 15.52	21.78	25.81	+15 40 55.3	55.7	− 1.2
15	B. D.+15° 797	9	17 2.15	−0.03	−41.43	5 16 20.69	−5.81	15 59 59.08	64.22	25.43	+15 59 39.2	38.5	− 1.0
16	B. D.+15° 810	9	20 41.31	0.03	41.43	5 19 59.85	5.79	15 29 49.32	54.62	26.06	15 29 28.7	28.3	0.4
17	B. D.+14° 917	9	22 56.99	0.03	41.43	5 22 15.53	5.77	14 56 11.85	17.38	26.77	14 55 50.6	50.3	− 0.1
18	B. D.+14° 934	9	26 40.44	0.03	41.43	5 25 58.98	5.77	14 51 32.68	39.65	26.87	14 51 11.3	12.5	+ 0.4
19	B. D.+14° 948	9	29 6.77	0.03	41.43	5 28 25.31	5.76	14 25 36.62	41.72	27.42	14 25 14.7	14.0	0.8
20	B. D.+14° 959	9	31 47.83	0.03	41.43	5 31 6.37	5.75	14 10 11.25	16.85	27.74	14 9 49.0	48.9	1.2
21	B. D.+13° 954	9	36 37.87	−0.02	−41.43	5 35 56.42	−5.71	13 6 10.35	16.70	29.12	+13 5 46.7	47.3	+ 1.9
22	B. D.+14° 998	9	38 37.37	−0.03	−41.43	5 37 55.91	−5.76	14 22 12.52	17.65	27.49	+14 21 50.5	49.8	+ 2.1
23	B. D.+12° 884	9	40 10.83	0.02	41.43	5 39 29.38	5.70	12 51 5.82	12.18	29.45	12 50 41.9	42.4	2.4
24	B. D.+12° 899	9	42 39.07	0.02	41.43	5 41 57.62	5.68	12 13 37.48	43.45	30.26	12 13 12.7	12.8	2.7
25	B. D.+13° 988	9	44 32.62	0.03	41.43	5 43 51.16	5.74	13 53 43.00	48.85	28.11	13 53 20.4	20.4	2.9
26	B. D.+12° 927	9	47 37.37	0.02	41.43	5 46 55.92	5.68	12 18 43.22	49.98	30.16	12 18 18.6	19.5	3.3
27	B. D.+12° 946	9	50 25.13	−0.03	−41.43	5 49 43.67	−5.70	12 52 58.98	64.92	29.42	+12 52 35.1	35.1	+ 3.7
28	B. D.+11° 995	9	55 46.26	−0.02	−41.43	5 55 4.81	−5.67	11 59 23.05	29.60	30.60	+11 58 57.8	58.6	+ 4.4
29	B. D.+11° 1005	9	57 56.44	0.02	41.43	5 57 14.99	5.64	11 5 55.52	61.12	31.79	11 5 29.1	28.9	4.7
30	B. D.+11° 1032	9	2 50.62	0.02	41.43	6 2 9.17	5.64	11 1 31.90	38.40	31.89	11 1 5.4	6.1	5.3
31	η Geminorum	9	9 38.06	0.05	**41.41**	6 8 56.58	6.09	22 32 14.80	19.98	17.72	22 32 2.4	1.8	6.4
32	μ Geminorum	9	17 42.24	0.05	**41.45**	6 17 0.76	6.08	22 33 59.30	65.10	17.69	22 33 47.0	46.9	7.6
33	8 Monocerotis	9	19 15.02	−0.01	**−41.48**	6 18 33.58	−5.42	4 39 5.62	12.25	41.06	+ 4 38 30.0	30.7	+ 7.3

1900 DECEMBER 28. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING A.	CIRCLE READING B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
34	α Ursæ Minoris	9	24 12.01	+9.20	**−44.36**	1 23	....	88 45 54.01	59.64	69.58	+88 47 7.5	7.6	....
35	β Arietis.	9	49 55.54	0.06	**43.84**	1 49	....	20 19	.....	.....	20 19 ...	...	....
36	γ Andromedæ	9	58 34.87	+0.17	**−43.80**	1 57	....	41 51	.....	.....	+41 51 ...	...	....

1900 DECEMBER 29. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING A.	CIRCLE READING B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
37	α Ursæ Minoris	9	24 16.62	+3.47	**[−44.12]**	1 23	....	88 45 52.11	58.99	71.04	+88 47 7.9	8.7	....
38	α Trianguli	9	48 11.89	0.02	**44.08**	1 47 27.86	−5.13	29 6 4.65	9.75	10.41	29 5 59.9	59.5	−29.1
39	β Arietis.	9	49 55.86	0.00	**44.11**	1 49 11.81	4.91	20 19 49.38	55.72	20.23	20 19 34.9	35.6	26.3
40	γ Andromedæ	9	58 35.20	0.04	**44.02**	1 57 51.19	5.72	41 51 23.30	28.55	3.09	41 51 32.1	31.7	32.0
41	B. D.+38° 418	9	3 47.32	0.04	44.05	2 3 3.31	5.66	39 7 29.75	35.10	0.22	39 7 35.5	35.4	30.8
42	B. D.+36° 427	9	6 14.92	0.03	44.05	2 5 30.90	5.60	36 53 19.08	24.10	2.14	36 53 22.5	22.1	29.9
43	B. D.+36° 440	9	8 43.19	+0.03	−44.05	2 7 59.17	−5.63	37 9 25.68	31.25	1.85	+37 9 29.4	29.5	−29.7

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
21 5 1	75.39	−1.5	−1.6
5 52	75.42	1.6	2.0
6 23	75.46	−1.6	−2.2
28 1 29	75.49	+4.9	+4.6
1 46	75.50	4.8	...
29 1 20	75.83	0.8	+0.4
2 2	75.82	+0.6	−0.5

Bisections are made at II and V, except as noted below.

34. Bisections at c_1, c_3, c_4 and c_5.
37. Bisections at c_1, c_2, c_4 and c_5.
40. Bisections at III and V.

Note.
34–36. Seeing bad.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–33, from stars.......	*	*
34, from nadir	+3.18	−2.40
37, from nadir	+3.90	−1.86
38–43, from stars.......	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
5	+4.1	−1.7
31	4.5	0.4
32	3.7	1.7
33	4.4	1.8
38	4.1	0.8
39	5.4	0.6
40	+4.4	−0.5

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+37° 514	9	11 43.98	+0.03	−44.05	2 10 59.96	−5.69	37 41 22.30	27.85	1.29	+37 41 26.5	26.7	−29.6
2	o Ceti	9	15 6.34	−0.03	**44.18**	2 14 22.26	4.52	356 35 12.38	20.32	54.83	− 3 25 36.7	34.3	16.5
3	B. D.+36° 478	9	19 59.58	+0.03	44.05	2 19 15.56	5.74	36 40 26.08	31.15	2.36	+36 40 29.3	28.8	28.4
4	B. D.+34° 437	9	21 34.89	0.03	44.05	2 20 50.87	5.68	35 10 17.18	22.78	3.95	35 10 18.8	18.8	27.9
5	B. D.+35° 494	9	25 54.80	0.03	44.05	2 25 10.78	5.74	35 19 11.40	16.08	3.79	35 19 13.1	12.3	27.4
6	B. D.+34° 454	4	26 53.13	0.02	44.05	2 26 9.10	5.70	34 14 37.68	43.12	4.93	34 14 38.2	37.9	27.0
7	B. D.+34° 462	9	29 2.67	+0.02	−44.05	2 28 18.64	−5.74	34 43 7.88	13.18	4.43	+34 43 8.9	8.8	−26.9
8	B. D.+34° 471	9	30 35.72	+0.02	−44.05	2 29 51.69	−5.74	34 17 44.78	50.10	4.88	+34 17 45.4	45.2	−26.6
9	B. D.+34° 483	9	33 30.96	0.02	44.05	2 32 46.93	5.79	34 50 47.80	54.55	4.29	34 50 49.0	50.3	26.4
10	B. D.+34° 492	9	35 41.47	0.02	44.05	2 34 57.44	5.79	34 24 52.58	59.22	4.75	34 24 53.3	54.5	26.1
11	B. D.+33° 494	9	38 6.50	0.02	44.05	2 37 22.47	5.78	33 45 20.02	25.20	5.45	33 45 20.0	19.8	25.6
12	B. D.+31° 477	9	41 8.78	0.02	44.05	2 40 24.75	5.72	31 34 55.52	60.45	7.77	31 34 53.2	52.7	24.7
13	B. D.+32° 507	9	43 50.98	0.02	44.05	2 43 6.95	5.79	32 45 59.45	64.50	6.50	32 45 58.3	58.0	24.7
14	B. D.+31° 493	7	45 45.83	+0.02	−44.05	2 45 1.80	−5.77	31 57 29.45	33.90	7.37	+31 57 27.5	26.5	−24.3
15	B. D.+30° 464	9	50 29.14	+0.01	−44.05	2 49 45.10	−5.76	30 38 41.62	46.70	8.77	+30 38 38.2	37.8	−23.4
16	B. D.+29° 508	9	55 14.74	0.01	44.05	2 54 30.70	5.78	30 10 45.10	50.15	9.27	30 10 41.2	40.8	22.7
17	B. D.+29° 517	9	58 28.95	0.01	44.05	2 57 44.91	5.80	30 7 35.75	40.30	9.33	30 7 31.8	30.9	22.3
18	B. D.+28° 488	9	0 8.08	0.01	44.05	2 59 24.04	5.77	29 9 37.98	42.05	10.38	29 9 33.0	31.6	21.8
19	B. D.+28° 493	9	2 6.18	0.01	44.04	3 1 22.15	5.77	28 44 42.28	47.05	10.83	28 44 36.8	36.1	21.5
20	B. D.+29° 531	9	5 3.57	0.01	44.04	3 4 19.54	5.82	29 17 33.98	37.60	10.23	29 17 29.0	27.3	21.2
21	B. D.+28° 507	9	8 24.75	+0.01	−44.04	3 7 40.72	−5.82	28 51 54.55	58.55	10.70	+28 51 49.2	47.8	−20.7
22	ζ Arietis	9	9 58.67	0.00	**−44.06**	3 9 14.63	−5.50	20 40	.....	.....	+20 40	....	....
23	B. D.+28° 514	9	13 14.63	+0.01	44.04	3 12 30.60	5.84	28 21 15.98	21.20	11.25	28 21 10.0	9.9	−20.0
24	B. D.+28° 517	9	15 26.83	+0.01	44.04	3 14 42.80	5.86	28 28 24.08	28.22	11.12	28 28 18.3	17.0	19.7
25	B. D.+26° 548	9	17 55.91	0.00	44.04	3 17 11.87	5.79	26 33 5.65	8.92	13.22	26 32 57.7	55.5	18.9
26	ξ Tauri	9	22 34.12	−0.02	**43.98**	3 21 50.06	5.20	9 23 48.22	52.95	34.14	9 23 19.2	18.5	13.9
27	B. D.+27° 514	9	25 50.84	0.00	44.04	3 25 6.80	5.88	27 23 48.72	55.18	12.29	27 23 41.6	42.7	18.1
28	B. D.+27° 526	9	30 12.46	0.00	−44.04	3 29 28.42	−5.92	27 31 10.62	15.92	12.16	+27 31 3.7	3.6	−17.6
29	B. D.+26° 596	9	35 1.81	0.00	−44.04	3 34 17.77	−5.90	26 34 12.32	16.52	13.21	+26 34 4.3	3.1	−16.7
30	B. D.+26° 601	9	37 17.58	0.00	44.04	3 36 33.54	5.90	26 15 37.05	41.55	13.55	26 15 28.7	27.8	16.3
31	B. D.+24° 546	9	40 1.47	0.00	44.04	3 39 17.43	5.84	24 31 57.08	63.05	15.48	24 31 46.7	47.4	15.6
32	B. D.+24° 568	9	42 36.91	0.00	44.04	3 41 52.87	5.88	25 5 3.90	10.58	14.86	25 4 54.2	55.5	15.4
33	B. D.+23° 561	9	44 13.93	0.00	44.04	3 43 29.89	5.85	24 4 58.68	65.98	15.98	24 4 47.8	49.8	14.9
34	B. D.+25° 627	9	46 7.24	0.00	44.04	3 45 23.20	5.95	26 3 32.50	36.98	13.78	26 3 23.8	23.0	15.1
35	B. D.+25° 641	9	48 23.02	0.00	−44.04	3 47 38.98	−5.93	25 23 33.80	38.45	14.52	+25 23 24.4	23.8	−14.6
36	B. D.+23° 586	9	50 40.67	0.00	−44.04	3 49 56.63	−5.86	23 32 35.62	40.65	16.60	+23 32 24.2	23.8	−13.9
37	ε Persei	9	51 59.26	+0.02	**44.06**	3 51 15.24	6.74	39 43	.....	.....	39 43	....	....
38	B. D.+23° 600	9	53 56.26	0.00	44.04	3 53 12.22	5.87	23 20 53.45	59.72	16.82	23 20 41.8	42.6	13.4
39	B. D.+22° 617[1]	9	55 50.24	0.00	44.04	3 55 6.20	5.86	22 55 36.55	42.92	17.30	22 55 24.4	25.3	13.1
40	B. D.+22° 629	9	0 17.12	0.00	44.04	3 59 33.08	5.88	22 54 10.55	15.50	17.33	22 53 58.3	57.9	12.5
41	B. D.+22° 637[1]	9	3 46.24	0.00	44.04	4 3 2.20	5.90	22 50 18.40	24.02	17.40	22 50 6.0	6.3	12.0
42	B. D.+20° 741	9	16 31.26	−0.01	−44.04	4 15 47.21	−5.88	20 57 23.70	29.85	19.58	+20 57 9.2	10.0	− 9.8
43	B. D.+21° 635	9	18 17.07	−0.01	−44.04	4 17 33.02	−5.89	21 9 8.42	13.98	19.35	+21 8 54.1	54.4	− 9.6
44	B. D.+21° 644	9	21 12.74	0.01	44.04	4 20 28.69	5.91	21 15 0.92	6.98	19.24	21 14 46.6	47.4	9.2
45	B. D.+19° 727	9	23 35.41	0.01	44.04	4 22 51.36	5.84	19 31 32.55	37.88	21.26	19 31 16.2	16.2	8.7
46	B. D.+19° 733	9	26 12.69	0.01	44.04	4 25 28.64	5.87	19 55 27.45	32.72	20.79	19 55 11.6	11.6	8.3
47	B. D.+19° 736	9	28 21.62	0.01	44.03	4 27 37.58	5.87	19 36 32.38	36.30	21.16	19 36 16.2	14.8	8.0
48	α Tauri	9	31 0.74	0.01	**44.08**	4 30 16.70	5.76	16 18 57.20	61.90	25.15	16 18 37.0	36.4	6.9
49	B. D.+18° 666	9	33 31.62	−0.01	−44.03	4 32 47.58	−5.84	18 32 25.32	29.98	22.44	+18 32 7.8	7.2	− 7.0
50	B. D.+19° 759	9	36 41.16	−0.01	−44.03	4 35 57.12	−5.91	19 54 7.28	12.40	20.82	+19 53 51.4	51.2	− 6.8
51	B. D.+17° 797	9	46 53.12	0.01	44.03	4 46 9.08	5.84	17 31 40.22	45.30	23.67	17 31 21.4	21.3	5.0
52	π^5 Orionis	9	49 51.89	0.03	**44.08**	4 49 7.83	5.30	2 17 20.78	26.30	44.91	2 16 40.8	41.0	2.3
53	B. D.+18° 765	9	53 20.08	0.01	44.03	4 52 36.04	5.92	18 50 40.92	45.88	22.08	18 50 23.7	23.4	4.3
54	B. D.+16° 688	9	59 7.68	0.01	44.03	4 58 23.64	5.86	16 59 28.50	33.68	24.33	16 59 9.0	8.9	3.2
55	B. D.+16° 700	9	3 1.20	0.02	44.03	5 2 17.15	5.86	16 51 15.18	20.80	24.50	16 50 55.5	55.8	2.7
56	B. D.+16° 715	9	5 54.26	−0.02	−44.03	5 5 10.21	−5.84	16 18 55.78	61.75	25.17	+16 18 35.4	36.1	− 2.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
29 2 40	.....	...	−0.9
2 49	75.84	+0.3	...
3 28	75.80	0.0	1.1
3 58	75.80	−0.2	−1.3

Bisections are made at II and V, except as noted below.

6, 26. Bisections at IV and VI.
7. Bisections at III and V.

Notes.

1–56. Seeing 2–3.
6. Hurried.
10. Companion preceding.

Eq. Pt. Cor. from stars.		
No.	A.	B.
	″	″
2	[+4.2]	[−3.4]
26	[1.4]	3.0
48	3.7	0.7
52	+2.7	−2.4

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–56, from stars......	*	*

* Interpolated from diagram.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D. +17° 869	9	7 32. 29	−0. 02	−44. 03	5 6 48. 24	−5. 88	17 5 54. 22	58. 82	24. 20	+17 5 34. 8	34. 2	−2. 1
2	B. D. +15° 769	9	10 31. 97	0. 02	44. 03	5 9 47. 92	5. 82	15 31 19. 68	24. 90	26. 16	15 30 58. 3	58. 3	1. 5
3	B. D. +16° 742	9	12 9. 88	0. 02	44. 03	5 11 25. 83	5. 86	16 14 52. 95	58. 30	25. 25	16 14 32. 5	32. 6	1. 3
4	B. D. +14° 881	9	15 43. 04	0. 02	44. 03	5 14 58. 99	5. 81	14 57 50. 32	54. 80	26. 86	14 57 28. 2	27. 5	0. 7
5	B. D. +15° 805	9	18 36. 56	0. 02	44. 03	5 17 52. 51	5. 86	15 57 5. 88	10. 90	25. 63	15 56 44. 9	44. 8	−0. 4
6	B. D. +15° 814	9	21 8. 34	−0. 02	−44. 03	5 20 24. 29	−5. 85	15 35 21. 28	26. 52	26. 09	+15 34 59. 9	60. 0	0. 0
7	B. D. +14° 917	9	22 59. 58	−0. 02	−44. 03	5 22 15. 53	−5. 82	14 56 12. 40	17. 38	26. 91	+14 55 50. 2	50. 0	+0. 3
8	B. D. +14° 933	9	26 38. 46	0. 02	44. 03	5 25 54. 41	5. 82	14 34 29. 12	34. 15	27. 38	14 34 6. 4	6. 3	0. 9
9	B. D. +14° 948	9	29 9. 35	0. 02	44. 03	5 28 25. 30	5. 82	14 25 36. 62	42. 55	27. 57	14 25 13. 7	14. 4	1. 2
10	B. D. +14° 959	9	31 50. 42	0. 02	44. 03	5 31 6. 37	5. 81	14 10 12. 35	16. 80	27. 90	14 9 49. 1	48. 3	1. 6
11	B. D. +13° 954	9	36 40. 47	0. 02	44. 03	5 35 56. 42	5. 77	13 6 11. 40	16. 58	29. 29	13 5 46. 8	46. 7	2. 4
12	B. D. +14° 998	9	38 39. 94	−0. 02	−44. 03	5 37 55. 89	−5. 82	14 22 12. 22	17. 15	27. 65	+14 21 49. 3	48. 9	+2. 5
13	B. D. +12° 884	9	40 13. 48	−0. 02	−44. 03	5 39 29. 43	−5. 77	12 51 5. 50	11. 62	29. 62	+12 50 40. 5	41. 4	+2. 9
14	B. D. +12° 896	9	42 24. 89	0. 02	44. 03	5 41 40. 84	5. 75	12 18 30. 82	37. 05	30. 34	12 18 5. 1	6. 2	3. 2
15	B. D. +13° 988	9	44 35. 18	0. 02	44. 03	5 43 51. 13	5. 81	13 53 43. 20	48. 95	28. 27	13 53 19. 5	20. 1	3. 4
16	B. D. +12° 927	9	47 39. 97	0. 02	44. 03	5 46 55. 92	5. 76	12 18 44. 10	49. 55	30. 35	12 18 18. 4	18. 6	3. 9
17	B. D. +12° 946	9	50 27. 77	0. 02	44. 03	5 49 43. 72	5. 78	12 52 59. 28	64. 70	29. 59	12 52 34. 3	34. 6	4. 2
18	B. D. +12° 963	9	53 17. 16	−0. 02	−44. 03	5 52 33. 11	−5. 78	12 52 35. 25	39. 70	29. 60	+12 52 10. 2	9. 5	+4. 6
19	B. D. +11° 1005	9	57 58. 98	−0. 02	−44. 03	5 57 14. 93	−5. 72	11 5 56. 12	60. 90	31. 97	+11 5 28. 8	28. 4	+5. 4
20	B. D. +11° 1032	9	2 53. 29	0. 02	44. 02	6 2 9. 25	5. 72	11 1 32. 90	38. 32	32. 07	11 1 5. 3	5. 6	6. 0
21	η Geminorum.......	9	9 40. 72	0. 02	**44.01**	6 8 56. 68	6. 18	22 32 15. 68	20. 55	17. 82	22 32 2. 3	2. 1	6. 4
22	μ Geminorum.......	9	17 44. 91	0. 02	**44.04**	6 17 0. 87	6. 19	22 33 59. 95	65. 28	17. 79	22 33 46. 6	46. 8	7. 7
23	8 Monocerotis.......	9	19 17. 71	−0. 03	**−44.02**	6 18 33. 66	5. 50	4 39 6. 12	11. 40	41. 29	+ 4 38 29. 4	29. 3	+8. 3
	UPDEGRAFF, OBSERVER.				1901 JANUARY 3.			CLAMP WEST.			LAWTON, ASSISTANT.		
24	α Ursæ Minoris.....	9	24 15. 73	+1. 90	**[−45.84]**	1 23	....	88 45	57. 86	73. 77	+88 47	8. 3	....
25	α Trianguli.........	9	48 13. 29	0. 02	**45.50**	1 47 27. 76	−5. 06	29 6 5. 70	11. 72	10. 79	29 5 59. 4	59. 4	−29. 0
26	β Arietis	9	49 57. 27	0. 01	**45.59**	1 49 11. 73	4. 85	20 19 51. 65	57. 50	20. 98	20 19 35. 2	35. 1	26. 1
27	γ Andromedæ	9	58 36. 67	0. 04	**45.57**	1 57 51. 16	5. 64	41 51 24. 65	30. 55	3. 20	41 51 32. 2	32. 2	32. 0
28	B. D. +37° 490	9	4 47. 25	0. 03	45. 55	2 4 1. 73	5. 56	38 11 54. 35	59. 42	0. 79	38 11 58. 0	57. 1	30. 5
29	B. D. +36° 427	9	6 16. 26	+0. 03	−45. 55	2 5 30. 74	−5. 52	36 53 20. 58	24. 45	2. 21	+36 53 22. 8	20. 7	−30. 0
30	B. D. +36° 440	9	8 44. 59	+0. 03	−45. 55	2 7 59. 07	−5. 56	37 9 26. 75	31. 75	1. 92	+37 9 29. 3	28. 3	−29. 8
31	B. D. +37° 514	9	11 45. 37	0. 03	45. 55	2 10 59. 85	5. 62	37 41 23. 92	29. 85	1. 34	+37 41 27. 0	27. 0	29. 7
32	ο Ceti..............	9	15 7. 73	0. 00	**45.59**	2 14 22. 18	4. 48	356 35 15. 12	23. 28	56. 85	− 3 25 37. 0	35. 0	16. 0
33	B. D. +36° 478	9	20 0. 94	0. 03	45. 55	2 19 15. 42	5. 67	36 40 26. 60	33. 05	2. 45	+36 40 28. 6	29. 1	28. 5
34	B. D. +34° 437	9	21 36. 27	+0. 03	−45. 55	2 20 50. 75	−5. 62	35 10 18. 78	24. 90	4. 09	+35 10 19. 1	19. 3	−27. 9
	LITTELL, OBSERVER.				1901 JANUARY 5.			CLAMP WEST.			LAWTON, ASSISTANT.		
35	α Ursæ Minoris.....	9	24 9. 40	+6. 88	**[−46.43]**	1 23	....	88 45	59. 26	71. 70	+88 47	9. 1	....
36	α Trianguli.........	9	48 14. 01	0. 07	**46.30**	1 47 27. 71	−5. 03	29 6 5. 12	10. 78	10. 52	29 5 59. 7	58. 8	−29. 0
37	β Arietis	9	49 58. 03	0. 04	**46.41**	1 49 11. 70	4. 82	20 19 50. 12	56. 82	20. 44	20 19 34. 8	34. 9	26. 0
38	γ Andromedæ	9	58 37. 41	0. 11	**46.41**	1 57 51. 15	5. 61	41 51 24. 25	31. 40	3. 12	41 51 32. 3	33. 0	32. 1
39	B. D. +37° 490	9	4 48. 17	0. 10	46. 38	2 4 1. 89	5. 53	38 11 52. 28	59. 28	0. 77	38 11 56. 4	56. 9	30. 5
40	B. D. +36° 427	9	6 17. 12	0. 09	46. 38	2 5 30. 83	5. 49	36 53 20. 00	25. 70	2. 16	36 53 22. 8	22. 0	30. 0
41	B. D. +36° 440	9	8 45. 43	+0. 09	−46. 38	2 7 59. 14	−5. 53	37 9 26. 12	31. 80	1. 87	+37 9 29. 2	28. 3	−29. 8

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
29 5 9	.....	...	−1. 8
5 14	75. 76	−0. 5	...
5 46	75. 78	1. 0	2. 3
6 24	75. 77	1. 3	2. 5
3 1 20	77. 13	3. 5	5. 2
1 46	77. 13	4. 0	5. 3
2 50	77. 12	−4. 8	6. 0
5 1 45	76. 58	+0. 5	−0. 2

Bisections are made at II and V, except as noted below.

23. Bisections at II and VI.
24. Bisections at c_1 and c_5.
35. Bisections at c_2 and c_4.

Notes.

1–23. Seeing 2–3.
5. Companion preceding.
24–34. Seeing 1.
28. Faint; very poor.
35–41. Seeing 3.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–23, from stars.......	*	*
24, from nadir......	....	−3. 90
25–34, from stars.......	+3. 4	−2. 3
35, from nadir......	....	−2. 75
36–41, from stars.......	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
21	+3. 7	−0. 9
22	3. 1	1. 9
23	3. 1	1. 6
25	3. 3	2. 4
26	3. 7	1. 9
27	3. 1	2. 6
32	[2. 9]	[4. 8]
36	3. 6	1. 8
37	4. 6	1. 8
38	+3. 6	−3. 3

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+37° 514	9	11 46.22	+0.09	−46.38	2 10 59.93	−5.59	37 41 23.25	29.92	1.31	+37 41 26.9	27.0	−29.7
2	o Ceti..............	9	15 8.56	−0.02	**46.42**	2 14 22.16	4.46	356 35 13.82	21.20	55.48	− 3 25 36.6	35.8	15.8
3	B. D.+36° 478	9	20 1.81	+0.09	46.38	2 19 15.52	5.64	36 40 27.52	33.02	2.39	+36 40 30.0	28.9	28.6
4	B. D.+34° 437	9	21 37.08	0.08	46.38	2 20 50.78	5.59	35 10 18.45	23.72	3.99	35 10 19.3	18.0	28.0
5	B. D.+34° 442	9	23 18.84	0.08	46.39	2 22 32.53	5.60	34 51 27.62	35.45	4.33	34 51 28.1	29.4	27.7
6	B. D.+35° 494	9	25 57.06	0.08	46.39	2 25 10.75	5.65	35 19 13.45	19.10	3.84	35 19 14.5	13.6	27.5
7	B. D.+34° 462	9	29 4.91	+0.08	−46.39	2 28 18.60	−5.65	34 43 9.78	15.72	4.48	+34 43 10.2	9.5	−27.0
8	B. D.+34° 471	9	30 37.99	+0.08	−46.39	2 29 51.68	−5.65	34 17 45.82	52.32	4.93	+34 17 45.8	45.7	−26.7
9	B. D.+34° 483	9	33 33.21	0.08	46.39	2 32 46.90	5.70	34 50 48.45	55.45	4.34	34 50 49.0	49.4	26.6
10	B. D.+34° 492	8	35 43.69	0.08	46.39	2 34 57.38	5.71	34 24 54.25	60.05	4.81	34 24 54.2	53.4	26.2
11	B. D.+32° 507	9	43 53.14	0.07	46.39	2 43 6.82	5.71	32 46 0.90	5.65	6.58	32 45 59.1	57.3	24.8
12	B. D.+31° 493	9	45 48.07	0.07	46.40	2 45 1.74	5.70	31 57 29.28	35.80	7.45	31 57 26.6	26.6	24.4
13	B. D.+31° 497	9	48 13.96	0.06	46.40	2 47 27.62	5.69	31 14 36.32	41.90	8.22	31 14 32.9	31.9	23.9
14	B. D.+30° 464	9	50 31.44	+0.06	−46.40	2 49 45.10	−5.68	30 38 42.60	47.45	8.87	+30 38 38.5	36.8	−23.5
15	B. D.+31° 509	9	52 5.04	+0.06	−46.40	2 51 18.70	−5.74	31 32 22.15	26.88	7.90	+31 32 19.0	17.1	−23.5
16	B. D.+29° 508	9	55 17.02	0.06	46.40	2 54 30.68	5.71	30 10 46.05	51.48	9.38	30 10 41.4	40.2	22.8
17	B. D.+28° 488	9	0 10.36	0.06	46.40	2 59 24.02	5.70	29 9 39.05	43.70	10.50	29 9 33.2	31.3	21.9
18	B. D.+28° 493	9	2 8.45	0.06	46.40	3 1 22.11	5.70	28 44 42.28	48.28	10.96	28 44 36.0	35.4	21.5
19	B. D.+29° 531	9	5 5.88	0.06	46.40	3 4 19.54	5.75	29 17 34.50	39.18	10.36	29 17 28.8	26.9	21.3
20	B. D.+28° 507	9	8 27.09	0.06	46.40	3 7 40.75	5.76	28 51 54.25	60.72	10.83	28 51 48.1	47.9	20.8
21	ζ Arietis	9	10 0.93	+0.03	**−46.40**	3 9 14.56	−5.45	20 40 59.30	66.15	20.12	+20 40 43.9	44.1	−18.2
22	B. D.+28° 514	7	13 17.01	+0.05	−46.41	3 12 30.65	−5.78	28 21 15.98	21.58	11.39	+28 21 9.3	8.2	−20.0
23	B. D.+28° 516	9	15 9.39	0.05	46.41	3 14 23.03	5.80	28 41 36.15	41.72	11.02	28 41 29.8	28.7	19.9
24	B. D.+26° 548	9	17 58.24	0.05	46.41	3 17 11.88	5.74	26 33 5.60	11.55	13.39	26 32 56.8	56.2	19.0
25	ξ Tauri	9	22 36.53	0.01	**46.46**	3 21 50.13	5.16	9 23 47.38	53.28	34.59	9 23 17.5	16.6	13.5
26	B. D.+27° 514	9	25 53.13	0.05	46.41	3 25 6.77	5.83	27 23 49.42	53.98	12.46	27 23 41.6	39.4	18.2
27	B. D.+27° 526	9	30 14.79	0.05	46.42	3 29 28.42	5.86	27 31 10.60	18.20	12.33	27 31 2.9	3.8	17.7
28	B. D.+26° 596	9	35 4.23	+0.05	−46.42	3 34 17.86	−5.86	26 34 11.52	18.48	13.38	+26 34 2.7	3.0	−16.8
29	B. D.+26° 601	9	37 19.98	+0.04	−46.42	3 36 33.60	−5.86	26 15 38.05	43.65	13.73	+26 15 28.9	27.7	−16.4
30	B. D.+24° 546	9	40 3.83	0.04	46.42	3 39 17.45	5.80	24 31 58.38	64.42	15.68	24 31 47.2	46.6	15.6
31	B. D.+24° 568	9	42 39.35	0.04	46.42	3 41 52.97	5.84	25 5 3.12	9.80	15.06	25 4 52.6	52.6	15.4
32	B. D.+23° 561	9	44 16.32	0.04	46.42	3 43 29.94	5.81	24 4 58.52	66.48	16.20	24 4 46.8	48.1	14.9
33	B. D.+25° 627	9	46 9.62	0.04	46.42	3 45 23.24	5.91	26 3 31.88	37.70	13.96	26 3 22.4	21.6	15.2
34	B. D.+25° 641	9	48 25.34	0.04	46.42	3 47 38.96	5.89	25 23 34.08	40.05	14.72	25 23 23.9	23.2	14.7
35	B. D.+23° 586	8	50 43.02	+0.04	−46.42	3 49 56.64	−5.82	23 32 35.48	41.72	16.82	+23 32 23.2	22.7	−13.9
36	ε Persei............	5	52 1.49	+0.08	**−46.39**	3 51 15.15	−6.69	39 43	.....	.....	+39 43	....	....
37	B. D.+24° 602	9	54 5.39	0.04	46.43	3 53 19.00	5.91	24 56 12.10	.....	15.23	24 56 1.4	....	−13.8
38	B. D.+22° 615	9	55 27.11	0.04	46.43	3 54 40.72	5.81	22 32 56.00	61.32	17.97	22 32 42.6	41.1	13.0
39	B. D.+22° 629	9	0 19.48	0.04	46.43	3 59 33.09	5.85	22 54 10.72	16.75	17.56	22 53 57.7	56.9	12.5
40	B. D.+22° 637[1]	9	3 48.57	0.04	46.43	4 3 2.18	5.87	22 50 17.95	25.30	17.64	22 50 4.7	5.4	12.0
41	B. D.+21° 601	7	6 6.37	0.03	46.43	4 5 19.97	5.83	21 37 52.52	59.48	19.05	21 37 37.9	38.2	11.4
42	B. D.+21° 635	9	18 19.48	+0.03	−46.44	4 17 33.07	−5.87	21 9 8.10	15.22	19.62	+21 8 52.9	53.2	− 9.6
43	B. D.+20° 754	8	20 45.87	+0.03	−46.44	4 19 59.46	−5.87	20 54 55.60	62.25	19.90	+20 54 40.1	40.0	− 9.2
44	B. D.+19° 727	9	23 37.80	0.03	46.44	4 22 51.39	5.83	19 31 32.90	38.78	21.56	19 31 15.8	14.8	8.5
45	B. D.+20° 772	9	26 37.93	0.03	46.44	4 25 51.52	5.88	20 34 28.68	35.68	20.32	20 34 12.7	12.9	8.3
46	B. D.+19° 736	9	28 24.09	0.03	46.44	4 27 37.68	5.85	19 36 32.82	37.82	21.47	19 36 15.7	13.9	7.8
47	B. D.+19° 742	9	30 43.07	0.03	46.44	4 29 56.66	5.87	19 40 56.38	61.95	21.39	19 40 39.4	38.1	7.5
48	B. D.+18° 666	9	33 34.03	0.03	46.44	4 32 47.62	5.83	18 32 25.82	30.45	22.77	18 32 7.4	5.2	6.9
49	B. D.+18° 684	9	37 53.66	+0.03	−46.44	4 37 7.25	−5.85	18 32 22.25	27.12	22.77	+18 32 3.8	1.9	− 6.3
50	B. D.+18° 719	9	41 18.72	+0.03	−46.45	4 40 32.30	−5.86	18 33 38.02	43.70	22.74	+18 33 19.6	18.5	− 5.8
51	B. D.+18° 734	9	43 43.11	0.03	46.45	4 42 56.69	5.87	18 32 58.65	63.30	22.76	18 32 40.2	38.0	5.5
52	B. D.+17° 797	9	46 55.63	+0.02	46.45	4 46 9.20	5.84	17 31 41.50	47.50	24.01	17 31 21.8	20.9	4.8
53	π^5 Orionis...........	9	49 54.28	−0.01	**46.44**	4 49 7.82	5.30	2 17 20.52	27.60	45.54	2 16 39.3	39.5	1.5
54	B. D.+18° 765	9	53 22.52	+0.03	46.45	4 52 36.10	5.92	18 50 41.58	47.98	22.40	18 50 23.4	23.0	4.2
55	ι Tauri	9	57 59.59	0.03	**46.49**	4 57 13.17	6.05	21 27 9.48	16.52	19.28	21 26 54.4	54.7	3.9
56	B. D.+18° 777	9	59 52.67	+0.02	−46.45	4 59 6.24	−5.91	18 7 15.42	20.92	23.29	+18 6 56.4	55.0	− 3.1

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
5 2 12	76.58	−0.3	−1.1
3 20	76.58	1.1	1.7
3 57	.....	...	2.1
4 32	76.58	−2.1	−2.5

Bisections are made at II and V, except as noted below.

22, 27, 41. Bisections at III and V.
37. Bisection at II.

Notes.

1–56. Seeing 3.
10. Very faint; poor observation.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–56, from stars......	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.		
No.	A.	B.
	″	″
2	[+2.7]	[−4.3]
21	3.9	2.7
25	[2.1]	3.4
53	2.8	3.9
55	+2.3	−4.5

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+16° 700	8	3 3.67	+0.02	-46.46	5 2 17.23	−5.87	16 51 15.20	21.45	24.85	+16 50 54.6	53.9	−2.4
2	B. D.+16° 715	9	5 56.71	0.02	46.46	5 5 10.27	5.85	16 18 57.45	63.90	25.52	16 18 36.2	35.7	2.0
3	B. D.+17° 869	9	7 34.72	0.02	46.46	5 6 48.28	5.89	17 5 54.50	60.35	24.54	17 5 34.1	33.1	1.8
4	B. D.+16° 735	9	9 26.13	0.02	46.46	5 8 39.69	5.88	16 34 6.05	12.08	25.20	16 33 45.0	44.2	1.5
5	B. D.+16° 742	9	12 12.37	0.02	46.46	5 11 25.93	5.87	16 14 54.28	60.92	25.60	16 14 32.9	32.7	1.1
6	B. D.+14° 881	9	15 45.56	0.02	46.46	5 14 59.12	5.83	14 57 51.15	57.92	27.23	14 57 28.1	28.0	0.4
7	B. D.+15° 805	9	18 38.97	+0.02	−46.46	5 17 52.53	−5.87	15 57 8.08	13.20	25.98	+15 56 46.3	44.5	−0.1
8	B. D.+15° 814	9	21 10.84	+0.02	−46.46	5 20 24.40	−5.86	15 35 20.50	28.58	26.44	+15 34 58.2	59.4	+0.3
9	B. D.+14° 933	9	26 40.97	0.02	46.47	5 25 54.52	5.84	14 34 29.42	36.12	27.74	14 34 5.9	5.6	1.2
10	B. D.+15° 856	9	29 8.51	0.02	46.47	5 28 22.06	5.88	15 31 16.30	23.22	26.53	15 30 54.0	53.9	1.4
11	B. D.+14° 959	9	31 52.99	0.02	46.47	5 31 6.54	5.84	14 10 11.60	19.85	28.27	14 9 47.5	48.7	2.0
12	B. D.+13° 954	9	36 42.96	0.02	46.47	5 35 56.51	5.80	13 6 12.22	17.98	29.67	13 5 46.7	45.5	2.8
13	B. D.+14° 998	9	38 42.47	+0.02	−46.47	5 37 56.02	−5.86	14 22 12.90	.....	28.01	+14 21 49.0	....	+2.9
14	B. D.+12° 884	9	40 15.96	+0.02	−46.47	5 39 29.51	−5.90	12 51 6.92	13.20	30.01	+12 50 41.0	40.3	+3.3
15	B. D.+12° 896	9	42 27.44	0.01	46.47	5 41 40.98	5.78	12 18 31.38	38.42	30.73	12 18 4.7	4.8	3.7
16	B. D.+12° 910	9	44 28.51	0.01	46.47	5 43 42.05	5.78	12 7 28.38	35.92	30.98	12 7 1.5	2.1	4.0
17	B. D.+11° 960	9	48 29.60	0.01	46.48	5 47 43.13	5.77	11 48 1.55	8.50	31.42	11 47 34.2	34.1	4.5
18	B. D.+12° 950	9	50 53.04	0.02	46.48	5 50 6.58	5.82	12 59 26.05	32.78	29.83	12 59 0.3	0.0	4.7
19	B. D.+12° 968	9	54 7.96	+0.02	−46.48	5 53 21.50	−5.82	12 48 16.10	23.25	30.08	+12 47 50.1	50.2	+5.2
20	B. D.+11° 1009	9	58 42.19	+0.01	−46.48	5 57 55.72	−5.78	11 41 19.12	26.45	31.58	+11 40 51.5	51.9	+5.9
21	ν Orionis...........	9	2 44.14	0.02	**46.49**	6 1 57.68	5.91	14 47 7.10	.....	27.50	14 46 43.6	....	6.2
22	B. D.+11° 1038	9	3 40.09	0.01	46.48	6 2 53.62	5.78	11 25	7.42	31.95	11 24	32.5	6.6
23	η Geminorum	9	9 43.16	0.04	**46.45**	6 8 56.72	6.24	22 32 16.82	23.20	18.05	22 32 2.7	2.1	6.5
24	μ Geminorum	9	17 47.34	+0.04	**46.46**	6 17 0.89	6.26	22 34 1.28	7.40	18.02	22 33 47.1	46.3	7.8
25	8 Monocerotis......	9	19 20.23	0.00	−**46.51**	6 18 33.74	−5.56	4 39 5.12	13.88	41.81	+ 4 38 27.3	29.0	+9.1

1901 JANUARY 8. CLAMP WEST.

LITTELL, OBSERVER. LAWTON, ASSISTANT.

26	α Trianguli.........	9	48 15.18	+0.18	−**47.62**	1 47 27.67	−4.99	29 6 5.68	11.55	10.30	+29 5 59.8	58.7	−28.9
27	β Arietis	9	49 59.26	0.12	**47.75**	1 49 11.69	4.79	20 19 51.10	57.45	20.02	20 19 35.5	34.9	25.9
28	γ Andromedæ	8	58 38.46	0.28	**47.68**	1 57 51.05	5.56	41 51 24.00	31.90	3.06	41 51 31.3	32.4	32.1
29	α Arietis	9	2 24.60	0.13	**47.70**	2 1 37.04	4.97	23 0 1.15	8.12	16.99	22 59 47.5	48.6	25.8
30	B. D.+38° 425	9	5 41.71	0.25	47.69	2 4 54.27	5.51	38 34 30.98	36.85	0.36	38 34 34.8	33.9	30.5
31	B. D.+36° 440	9	8 46.55	0.24	47.69	2 7 59.10	5.49	37 9 26.75	32.98	1.83	37 9 29.2	28.6	29.8
32	B. D.+37° 514	9	11 47.37	+0.24	−47.69	2 10 59.92	−5.54	37 41 23.50	30.62	1.28	+37 41 26.4	26.7	−29.7
33	B. D.+36° 478	9	20 2.98	+0.24	−47.70	2 19 15.52	−5.59	36 40 25.52	32.65	2.34	+36 40 27.4	27.7	−28.6
34	B. D.+34° 437	9	21 38.32	0.22	47.70	2 20 50.84	5.55	35 10 18.22	25.15	3.91	35 10 18.5	18.6	28.0
35	B. D.+34° 442	9	23 20.03	0.22	47.70	2 22 32.55	5.56	34 51 28.32	35.65	4.24	34 51 28.2	28.8	27.7
36	B. D.+35° 494	9	25 58.25	0.22	47.70	2 25 10.77	5.60	35 19 12.10	19.98	3.75	35 19 12.5	13.6	27.5
37	B. D.+33° 461	9	29 5.75	0.21	47.70	2 28 18.26	5.55	33 21 39.02	46.62	5.81	33 21 37.4	38.2	26.6
38	B. D.+34° 471	9	30 39.09	0.22	47.70	2 29 51.61	5.61	34 17 45.52	52.30	4.83	34 17 44.9	44.9	26.7
39	B. D.+32° 478	9	33 36.64	+0.21	−47.70	2 32 49.15	−5.58	32 59 39.90	45.72	6.19	+32 59 37.9	36.8	−26.0
40	B. D.+33° 494	9	38 9.94	+0.21	−47.70	2 37 22.45	−5.66	33 45 19.78	27.00	5.40	+33 45 18.5	19.0	−25.8
41	μ Ceti...............	9	40 24.74	0.05	**47.78**	2 39 37.09	4.90	9 42 19.68	26.08	33.37	9 41 50.6	50.2	17.9
42	B. D.+32° 507	9	43 54.40	0.20	47.70	2 43 6.90	5.67	32 45 59.68	67.48	6.44	32 45 57.3	58.4	24.8
43	B. D.+31° 493	8	45 49.27	0.20	47.70	2 45 1.77	5.66	31 57 29.90	36.42	7.29	31 57 26.7	26.5	24.4
44	B. D.+31° 497	9	48 15.14	0.19	47.70	2 47 27.63	5.65	31 14 36.82	42.95	8.05	31 14 32.8	32.3	23.9
45	B. D.+30° 464	9	50 32.64	+0.19	−47.70	2 49 45.13	−5.65	30 38 42.68	48.32	8.68	+30 38 38.1	37.0	−23.5
46	B. D.+31° 509	9	52 6.30	+0.19	−47.70	2 51 18.79	−5.70	31 32 21.78	26.72	7.74	+31 32 18.1	16.4	−23.5
47	B. D.+29° 508	9	55 18.18	0.18	47.70	2 54 30.66	5.67	30 10 47.35	52.55	9.18	30 10 42.3	40.8	22.8
48	B. D.+28° 488	9	0 11.52	0.18	47.71	2 59 23.99	5.67	29 9 39.12	44.60	10.27	29 9 33.0	31.7	21.9
49	B. D.+28° 493	9	2 9.64	0.17	47.71	3 1 22.10	5.67	28 44 43.70	49.25	10.72	28 44 37.1	35.9	21.5
50	B. D.+29° 531	9	5 7.01	0.18	47.71	3 4 19.48	5.72	29 17 33.90	39.92	10.13	29 17 27.8	27.2	21.3
51	B. D.+28° 507	9	8 28.25	+0.17	−47.71	3 7 40.71	−5.73	28 51 54.18	61.02	10.59	+28 51 47.6	47.8	−20.8

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
5 5 23	76.58	−2.6	−2.6
5 46	.....	...	2.8
6 15	76.57	−3.1	−3.0
8 1 47	76.07	+4.0	+3.3
2 36	.....	...	2.6
2 54	76.11	+3.5	+2.6

Bisections are made at II and V, except as noted below.

13, 21. Bisection at II.
22. Bisection at V.

Notes.
1–25. Seeing 3.
39. Close double.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–25, from stars......	*	*
26–51, from stars......	*	−3.4

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
21	+2.7	...
23	2.7	−3.4
24	1.9	3.9
25	3.8	4.5
26	2.7	2.9
27	3.1	3.0
28	4.0	3.8
29	3.3	3.4
41	[+1.8]	−4.3

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ζ Arietis	9	10 2.13	+0.12	**−47.72**	3 9 14.54	−5.42	20 40 59.40	66.25	19.68	+20 40 43.8	44.0	−18.1
2	B. D.+28° 514	9	13 18.13	0.17	47.71	3 12 30.59	5.74	28 21 16.42	23.52	11.15	28 21 9.3	9.8	20.1
3	B. D.+28° 516	9	15 10.54	0.17	47.71	3 14 23.00	5.77	28 41 35.95	42.42	10.78	28 41 29.2	29.0	19.9
4	B. D.+26° 548	9	17 59.34	0.16	47.71	3 17 11.79	5.70	26 33 6.20	11.55	13.10	26 32 57.1	55.9	19.0
5	B. D.+27° 509	9	22 29.99	0.16	47.71	3 21 42.44	5.78	27 24 37.08	43.42	12.17	27 24 28.9	28.7	18.6
6	B. D.+27° 514	9	25 54.33	0.16	47.71	3 25 6.78	5.80	27 23 49.08	55.75	12.18	27 23 40.9	41.0	18.2
7	B. D.+27° 519	9	27 27.09	+0.17	−47.71	3 26 39.55	−5.84	28 2 0.42	6.75	11.49	+28 1 52.8	52.7	−18.2
8	B. D.+27° 526	9	30 15.94	+0.16	−47.71	3 29 28.39	−5.84	27 31 12.12	18.88	12.05	+27 31 4.0	4.2	−17.7
9	B. D.+26° 596	9	35 5.38	0.16	47.72	3 34 17.82	5.83	26 34 12.12	18.42	13.09	26 34 2.9	2.8	16.8
10	B. D.+26° 601	9	37 21.09	0.16	47.72	3 36 33.53	5.83	26 15 37.92	43.28	13.42	26 15 28.4	27.3	16.4
11	B. D.+24° 546	9	40 5.04	0.14	47.72	3 39 17.46	5.78	24 31 58.82	65.65	15.33	24 31 47.4	47.7	15.6
12	B. D.+24° 568	9	42 40.51	0.15	47.72	3 41 52.94	5.82	25 5 4.08	11.28	14.73	25 4 53.3	54.0	15.4
13	B. D.+23° 561	9	44 17.47	0.14	47.72	3 43 29.89	5.78	24 4 59.55	67.15	15.83	24 4 47.6	48.7	14.9
14	B. D.+25° 627	9	46 10.77	+0.15	−47.72	3 45 23.20	−5.88	26 3 32.75	38.20	13.65	+26 3 23.0	22.0	−15.2
15	B. D.+25° 639	9	48 21.68	+0.15	−47.72	3 47 34.11	−5.88	25 38 41.68	48.25	14.11	+25 38 31.4	31.6	−14.8
16	B. D.+23° 586	8	50 44.27	0.14	47.72	3 49 56.69	5.80	23 32 35.98	.....	16.44	23 32 23.4	....	13.9
17	ε Persei	9	52 2.61	0.26	**47.71**	3 51 15.15	6.67	39 43	35.90	0.84	39 43	34.1	17.8
18	B. D.+24° 602	9	54 6.61	0.15	47.72	3 53 19.04	5.88	24 56 12.55	18.30	14.89	24 56 1.5	0.8	13.8
19	B. D.+22° 615	9	55 28.36	0.13	47.72	3 54 40.77	5.79	22 32 55.85	61.82	17.56	22 32 42.1	41.7	13.0
20	B. D.+23° 613	9	0 10.58	0.14	47.72	3 59 23.00	5.86	23 31 50.40	57.18	16.46	23 31 37.8	38.1	12.6
21	B. D.+23° 624	8	3 45.96	+0.14	−47.72	4 2 58.38	−5.88	23 36 43.20	50.52	16.36	+23 36 30.7	31.6	−12.2
22	B. D.+23° 642	9	7 20.01	+0.14	−47.72	4 6 32.43	−5.89	23 19 24.42	31.30	16.69	+23 19 11.6	12.0	−11.6
23	B. D.+20° 741	9	16 34.86	0.12	47.73	4 15 47.25	5.84	20 57 24.38	31.52	19.38	20 57 8.8	9.6	9.7
24	B. D.+21° 635	8	18 20.72	0.12	47.73	4 17 33.11	5.86	21 9 9.08	16.00	19.15	21 8 53.7	54.3	9.6
25	B. D.+20° 754	9	20 47.08	0.12	47.73	4 19 59.47	5.86	20 54 55.95	63.08	19.43	20 54 40.3	40.9	9.1
26	B. D.+19° 727	7	23 39.11	0.11	47.73	4 22 51.49	5.81	19 31 33.00	40.65	21.04	19 31 15.7	17.0	8.5
27	B. D.+19° 731	9	25 19.45	0.11	47.73	4 24 31.83	5.82	19 37 47.25	52.72	20.92	19 37 30.1	29.2	8.2
28	α Tauri	8	31 4.31	+0.09	**−47.78**	4 30 16.67	−5.73	16 18 57.72	63.42	24.88	+16 18 36.5	36.0	−6.6
29	τ Tauri	9	37 8.13	+0.13	**−47.71**	4 36 20.53	−6.02	22 46 15.80	21.78	17.31	+22 46 2.1	1.7	−7.2
30	B. D.+18° 719	9	41 19.94	0.11	47.73	4 40 32.32	5.85	18 33 38.98	44.00	22.18	18 33 20.5	19.2	5.8
31	B. D.+18° 734	9	43 44.33	0.11	47.73	4 42 56.71	5.86	18 32 58.25	.....	22.19	18 32 39.7	....	5.4
32	B. D.+18° 743	9	46 24.91	0.11	47.73	4 45 37.29	5.89	18 40 34.25	39.72	22.03	18 40 15.9	15.1	5.0
33	B. D.+19° 811	5	49 59.18	0.11	47.74	4 49 11.55	5.92	19 19 46.28	52.28	21.27	19 19 28.7	28.4	4.7
34	B. D.+16° 672	9	52 29.20	0.10	47.74	4 51 41.56	5.83	17 0 12.20	19.02	24.04	16 59 51.8	52.4	3.9
35	ι Tauri	9	58 0.71	+0.12	**−47.70**	4 57 13.09	−6.05	21 27 8.75	16.35	18.80	+21 26 53.5	54.8	−3.9

1901 JANUARY 9. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
36	α Ursæ Minoris.....	6	23 41.80	+33.07	**−49.87**	1 23	....	88 45 57.00	65.38	68.75	+88 47 9.7	9.4	....
37	γ Andromedæ......	6	58 38.58	0.62	**48.15**	1 57	....	41 51	.....	.....	41 51 ...	...	....
38	α Arietis	4	2 24.96	+0.28	**−48.22**	2 1	....	22 59	.....	.....	+22 59 ...	...	....

1901 JANUARY 13. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0'SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
39	α Ursæ Minoris.....	9	24 2.70	+8.43	**[−49.58]**	1 23	....	88 45 54.46	62.78	70.52	+88 47 10.1	10.0	....
40	α Trianguli.........	9	48 16.40	0.10	**48.88**	1 47 27.64	−4.92	29 6 4.35	10.70	10.32	29 5 59.5	58.6	−28.6
41	β Arietis	9	50 0.41	0.06	**48.91**	1 49 11.59	4.72	20 19 49.78	56.95	20.04	20 19 35.3	35.1	25.6
42	γ Andromedæ......	9	58 39.69	+0.15	**−48.87**	1 57 50.96	−5.47	41 51 22.98	31.35	3.06	+41 51 31.4	32.5	−32.0

Time.		Barom.	Att. Ther.	Ext. Ther.
	h m	cm.	°	°
8	3 24	76.10	3.4	2.3
	3 58	76.07	3.1	2.1
	4 56	76.03	3.0	2.1
9	1 19	76.08	11.0	9.8
	2 4	76.12	10.0	8.6
13	1 26	75.78	2.7	2.0
	1 55	.....	...	1.8

Bisections are made at II and V, except as noted below.

16, 31.	Bisection at II.
17.	Bisection at V.
25, 29, 35.	Bisections at II and VI.
36, 39.	Bisections at c_1, c_2, c_4 and c_5.

Notes.

15, 16, 24, 26.	Very faint; poor.
27, 31, 34, 37, 38.	Clouds.
39–42.	Seeing 4.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–35, from stars......	*	−3.4
36, from nadir.....	+3.06	−5.31
39, from nadir.....	+4.19	−3.88
40–42, from stars......	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+3.2	−3.3
17	...	4.0
28	2.6	2.8
29	2.2	3.3
35	2.5	4.6
40	3.8	2.3
41	4.1	2.7
42	+4.9	−3.3

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α Arietis	9	2 25.78	+0.07	−**48.88**	2 1 36.97	−4.91	22 59 59.48	66.82	17.01	+22 59 48.0	47.9	−25.6
2	B. D.+37° 491	7	5 4.24	0.13	48.87	2 4 15.50	5.37	37 13 20.52	27.28	1.77	37 13 24.1	23.6	30.1
3	B. D.+36° 440	9	8 47.67	0.12	48.87	2 7 58.92	5.41	37 9 25.38	32.58	1.84	37 9 28.9	28.8	29.7
4	B. D.+37° 514	9	11 48.49	0.13	48.87	2 10 59.75	5.46	37 41 21.68	29.70	1.28	+37 41 25.7	26.5	29.6
5	ο Ceti	9	15 10.93	0.01	**48.92**	2 14 22.07	4.36	356 35 10.38	19.32	54.32	− 3 25 38.3	36.8	15.1
6	B. D.+35° 470	9	20 14.86	0.12	48.87	2 19 26.11	5.47	35 31 35.55	42.50	3.54	+35 31 37.3	37.0	28.1
7	B. D.+36° 491	9	22 3.02	+0.12	−48.87	2 21 14.27	−5.53	36 31 26.62	34.78	2.50	+36 31 29.5	30.3	−28.3
8	B. D.+34° 448	9	25 58.32	+0.11	−48.87	2 25 9.56	−5.50	34 29 41.65	48.68	4.62	+34 29 42.3	42.1	−27.2
9	B. D.+33° 461	9	29 6.84	0.10	48.87	2 28 18.07	5.48	33 21 37.90	45.58	5.81	33 21 37.4	37.8	26.6
10	B. D.+32° 478	9	33 37.73	0.10	48.86	2 32 48.97	5.51	32 59 38.30	45.42	6.20	32 59 37.4	37.2	26.0
11	B. D.+33° 493	9	37 25.33	0.10	48.86	2 36 36.57	5.56	33 20 51.85	58.75	5.83	33 20 51.3	50.9	25.7
12	μ Ceti	9	40 25.82	0.02	**48.89**	2 39 36.98	4.85	9 42 17.05	24.72	33.41	9 41 49.0	49.4	17.6
13	B. D.+32° 508	9	43 55.48	0.10	48.86	2 43 6.72	5.59	32 26 8.15	14.78	6.79	32 26 6.6	5.9	24.7
14	B. D.+31° 493	9	45 50.33	+0.10	−48.86	2 45 1.57	−5.59	31 57 29.22	34.78	7.30	+31 57 27.2	25.4	−24.4
15	B. D.+31° 497	9	48 16.24	+0.09	−48.86	2 47 27.47	−5.59	31 14 35.48	42.35	8.06	+31 14 32.6	32.2	−23.9
16	B. D.+30° 464	9	50 33.69	0.09	48.86	2 49 44.92	5.58	30 38 41.65	47.30	8.69	30 38 38.1	36.5	23.4
17	B. D.+30° 469	9	52 52.59	0.09	48.86	2 52 3.82	5.62	31 7 20.25	26.70	8.19	31 7 17.2	16.4	23.3
18	B. D.+29° 508	9	55 19.33	0.09	48.86	2 54 30.56	5.61	30 10 45.32	51.68	9.19	30 10 41.3	40.4	22.7
19	B. D.+28° 488	9	0 12.66	0.08	48.85	2 59 23.89	5.61	29 9 37.58	43.50	10.28	29 9 32.5	31.1	21.9
20	β Persei	9	2 34.44	0.13	**48.82**	3 1 45.72	6.17	40 34 32.40	39.38	1.73	40 34 39.2	39.0	24.9
21	B. D.+29° 531	9	5 8.16	+0.08	−48.85	3 4 19.39	−5.66	29 17 32.15	39.40	10.14	+29 17 27.2	27.2	−21.3
22	B. D.+30° 503	9	7 45.28	+0.09	−48.85	3 6 56.52	−5.73	30 29 3.50	9.38	8.87	+30 28 59.8	58.3	−21.4
23	ζ Arietis	9	10 3.29	0.06	**48.87**	3 9 14.50	5.37	20 40 57.50	66.05	19.70	20 40 43.0	44.2	18.0
24	B. D.+28° 514	9	13 19.28	0.08	48.85	3 12 30.51	5.69	28 21 15.82	22.38	11.16	28 21 9.8	9.0	20.1
25	B. D.+28° 516	9	15 11.68	0.08	48.85	3 14 22.91	5.72	28 41 35.20	40.95	10.79	28 41 29.5	28.0	19.9
26	B. D.+26° 548	9	18 0.51	0.07	48.85	3 17 11.73	5.65	26 33 5.15	11.08	13.11	26 32 57.2	55.8	18.9
27	ξ Tauri	9	22 38.85	0.02	**48.86**	3 21 50.02	5.09	9 23 45.70	52.72	33.86	9 23 17.1	16.7	13.0
28	B. D.+27° 515[1]	9	26 12.19	+0.07	−48.85	3 25 23.41	−5.74	27 14 15.52	21.70	12.37	+27 14 8.3	7.2	−18.1
29	B. D.+27° 526	9	30 17.12	+0.07	−48.84	3 29 28.35	−5.79	27 31 10.70	18.05	12.06	+27 31 3.7	3.8	−17.7
30	Anonymous	9	35 1.63	0.07	48.84	3 34 12.86	5.78	26 34 40.52	46.02	13.10	26 34 32.4	30.6	16.8
31	B. D.+25° 593	9	38 1.77	0.06	48.84	3 37 12.99	5.75	25 22 11.88	17.68	14.42	25 22 2.5	1.0	16.1
32	B. D.+26° 608	7	40 6.66	0.07	48.84	3 39 17.89	5.82	26 35 4.35	10.50	13.09	26 34 56.2	55.1	16.2
33	B. D.+23° 562	9	44 23.14	0.06	48.84	3 43 34.36	5.73	23 56 58.05	65.78	16.00	23 56 47.1	47.5	14.8
34	B. D.+24° 583	9	46 20.31	0.06	48.84	3 45 31.53	5.79	24 52 3.82	10.92	14.98	24 51 53.9	53.7	14.8
35	B. D.+23° 589	9	51 35.35	+0.06	−48.84	3 50 46.57	−5.76	23 18 39.90	46.55	16.72	+23 18 28.2	27.5	−13.7
36	B. D.+24° 602	9	54 7.69	+0.06	−48.84	3 53 18.91	−5.84	24 56 10.98	18.10	14.91	+24 56 1.1	0.9	−13.8
37	B. D.+22° 615	9	55 29.49	0.05	48.84	3 54 40.70	5.75	22 32 54.10	60.95	17.59	22 32 41.4	41.1	13.0
38	B. D.+23° 613	9	0 11.68	0.06	48.83	3 59 22.91	5.82	23 31 49.75	57.75	16.48	23 31 38.2	38.9	12.6
39	B. D.+23° 624	9	3 47.08	0.06	48.83	4 2 58.31	5.84	23 36 42.50	50.45	16.39	23 36 31.0	31.7	12.1
40	B. D.+23° 642	9	7 21.15	0.06	48.83	4 6 32.38	5.85	23 19 24.30	31.30	16.72	23 19 12.5	12.2	11.6
41	B. D.+20° 741	9	16 35.07	+0.05	−48.83	4 15 47.19	−5.81	20 57 22.52	30.72	19.42	+20 57 8.0	8.9	− 9.7
42	B. D.+21° 641	9	19 12.97	+0.05	−48.83	4 18 24.19	−5.84	21 30 39.92	47.85	18.78	+21 30 26.0	26.6	− 9.5
43	B. D.+20° 754	9	20 48.16	0.05	48.83	4 19 59.38	5.83	20 54 54.48	62.35	19.47	20 54 39.9	40.4	9.1
44	B. D.+19° 727	9	23 40.12	0.04	48.83	4 22 51.33	5.78	19 31 32.10	39.98	21.09	19 31 15.9	16.4	8.4
45	B. D.+21° 657	9	27 6.67	0.05	48.82	4 26 17.90	5.88	21 25 26.10	33.55	18.89	21 25 12.1	12.2	8.3
46	B. D.+20° 778	9	29 46.44	0.05	48.82	4 28 57.67	5.88	20 54 6.22	14.20	19.49	20 53 51.6	52.2	7.8
47	B. D.+19° 744	9	31 37.72	+0.04	−48.82	4 30 48.94	−5.82	19 33 42.70	49.12	21.05	+19 33 26.5	25.6	− 7.2
48	B. D.+18° 666	9	33 36.34	+0.04	−48.82	4 32 47.56	−5.79	18 32 23.88	30.62	22.26	+18 32 6.5	5.9	− 6.7
49	B. D.+18° 684	9	37 55.99	0.04	48.82	4 37 7.21	5.81	18 32 20.52	26.30	22.26	18 32 3.0	1.6	6.1
50	B. D.+18° 719	9	41 21.09	0.04	48.82	4 40 32.31	5.83	18 33 37.35	43.05	22.24	18 33 19.9	18.3	5.6
51	B. D.+18° 734	9	43 45.41	0.04	48.82	4 42 56.63	5.84	18 32 56.62	62.28	22.26	18 32 39.1	37.4	5.3
52	B. D.+18° 743	9	46 26.04	0.04	48.82	4 45 37.26	5.87	18 40 32.65	39.58	22.12	18 40 15.3	14.9	4.9
53	B. D.+18° 747	9	48 38.98	+0.04	−48.82	4 47 50.20	−5.88	18 54 47.82	54.45	21.84	+18 54 30.7	30.0	− 4.7
54	B. D.+17° 814	9	51 35.93	+0.04	−48.82	4 50 47.15	−5.85	17 51 5.25	12.92	23.12	+17 50 46.9	47.2	− 4.0
55	B. D.+16° 688	9	59 12.45	0.03	48.81	4 58 23.67	5.84	16 59 28.28	34.58	24.18	16 59 8.9	7.8	2.8
56	B. D.+17° 841	9	1 23.47	0.04	48.81	5 0 34.70	5.88	17 41 12.55	19.40	23.35	17 40 53.9	53.5	2.6
57	B. D.+15° 749	9	3 16.26	0.03	48.81	5 2 27.48	5.80	15 43 49.30	55.88	25.74	15 43 28.2	27.6	1.9
58	B. D.+16° 715	9	5 59.08	0.03	48.81	5 5 10.30	5.84	16 18 55.50	62.70	25.03	16 18 35.1	35.0	1.7
59	B. D.+17° 869	9	7 37.08	+0.03	−48.81	5 6 48.30	−5.88	17 5 53.72	59.78	24.07	+17 5 34.3	33.1	− 1.6

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
13 2 24	75.78	1.9	1.4
2 57	75.77	1.5	1.1
3 24	75.76	1.3	1.0
4 18	.....	...	0.6
4 39	75.77	0.7	0.5

Bisections are made at II and V, except as noted below.

14, 47. Bisections at III and V.
32. Bisections at IV and V.

Note.
1-59. Seeing 4.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–59, from stars......	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+4.8	−2.2
5	[4.2]	[4.3]
12	4.2	3.2
20	3.6	3.2
23	5.0	3.2
27	[+2.5]	[−4.1]

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+15° 779	9	12 19.64	+ 0.03	−48.81	5 11 30.86	−5.81	15 9 37.20	44.85	26.48	+15 9 15.4	15.7	− 0.6
2	B. D.+14° 881	9	15 47.89	0.03	48.81	5 14 59.11	5.82	14 57 49.65	57.60	26.72	14 57 27.6	28.2	0.0
3	B. D.+15° 805	9	18 41.36	0.03	48.81	5 17 52.58	5.87	15 57 5.75	12.58	25.49	15 56 44.9	44.4	+ 0.2
4	B. D.+15° 814	9	21 13.18	0.03	48.81	5 20 24.40	5.86	15 35 20.18	27.22	25.94	15 34 58.9	58.6	0.6
5	B. D.+14° 933	9	26 43.30	0.03	48.80	5 25 54.53	5.84	14 34 28.92	36.28	27.21	14 34 6.3	6.4	1.6
6	B. D.+15° 856	9	29 10.87	0.03	48.80	5 28 22.10	5.88	15 31 14.85	22.68	26.03	15 30 53.4	54.0	1.7
7	B. D.+14° 959	8	31 55.30	+ 0.02	−48.80	5 31 6.52	−5.84	14 10 9.82	18.18	27.73	+14 9 46.7	47.7	+ 2.4
8	B. D.+14° 978	7	35 0.21	+ 0.03	−48.80	5 34 11.44	−5.87	14 44 57.08	64.48	26.99	+14 44 34.7	34.7	+ 2.7
9	B. D.+14° 991	9	38 12.23	0.02	48.80	5 37 23.45	5.85	14 8 11.02	17.55	27.77	14 7 47.8	47.0	3.2
10	B. D.+12° 910	9	44 30.83	0.02	48.80	5 43 42.05	5.79	12 7 27.10	34.75	30.37	12 7 1.3	1.6	4.4
11	B. D.+11° 960	9	48 31.94	0.02	48.80	5 47 43.16	5.79	11 48 0.52	7.80	30.80	11 47 34.3	34.2	5.0
12	B. D.+12° 950	9	50 55.38	0.02	48.80	5 50 6.60	5.84	12 59 24.32	31.93	29.23	12 58 59.6	59.9	5.2
13	B. D.+12° 968	9	54 10.29	+ 0.02	−48.80	5 53 21.51	−5.84	12 48 14.70	22.05	29.46	+12 47 49.7	49.8	+ 5.6
14	B. D.+11° 1009	9	58 44.49	+ 0.02	−48.79	5 57 55.72	−5.80	11 41 17.75	25.42	30.91	+ 11 40 51.3	51.7	+ 6.4
15	ν Orionis	9	2 46.46	0.02	**48.78**	6 1 57.69	5.94	14 47	.....	.....	14 47	....	....
16	B. D.+11° 1038	9	3 42.44	0.02	48.79	6 2 53.67	5.80	11 24 59.12	66.82	31.25	11 24 32.4	32.7	7.2
17	η Geminorum	9	9 45.52	0.04	**48.77**	6 8 56.77	6.28	22 32 15.80	22.25	17.64	22 32 2.5	1.7	6.5
18	μ Geminorum	9	17 49.73	0.04	**48.81**	6 17 0.98	6.30	22 33 59.10	67.52	17.60	22 33 45.8	46.9	7.8
19	8 Monocerotis	9	19 22.55	+ 0.01	−**48.81**	6 18 33.77	−5.59	4 39 4.42	11.45	40.82	+ 4 38 28.0	27.7	+10.0

1901 JANUARY 15. CLAMP WEST.

LITTELL, OBSERVER. LAWTON, ASSISTANT.

20	α Ursæ Minoris	9	23 49.33	+21.05	[−**50.59**]	1 23	....	88 45 57.70	66.16	67.69	+88 47 9.9	10.0	....
21	α Trianguli	9	48 17.06	0.24	**49.66**	1 47 27.61	−4.89	29 6 5.48	11.42	9.91	29 5 60.1	58.8	−28.5
22	β Arietis	9	50 1.03	0.16	**49.65**	1 49 11.50	4.70	20 19 49.78	56.98	19.27	20 19 35.1	35.0	25.5
23	γ Andromedæ	9	58 40.31	0.39	**49.75**	1 57 51.01	5.45	41 51 23.60	31.55	2.94	41 51 31.0	31.8	32.0
24	α Arietis	9	2 26.44	0.18	**49.68**	2 1 36.93	4.88	22 59 59.48	67.20	16.35	22 59 47.7	48.2	25.5
25	B. D.+36° 426	9	5 32.20	0.33	49.70	2 4 42.83	5.34	37 14 13.10	20.52	1.68	37 14 15.8	16.1	30.0
26	B. D.+38° 434	9	7 35.28	+ 0.35	−49.70	2 6 45.93	−5.41	38 25 25.98	34.00	0.50	+38 25 29.9	30.8	−30.2
27	B. D.+37° 512	9	10 20.21	+ 0.34	−49.70	2 9 30.85	−5.42	37 55 29.85	36.60	1.00	+37 55 33.3	32.9	−29.8
28	B. D.+37° 516	9	12 9.44	+ 0.33	49.70	2 11 20.07	5.42	37 22 36.10	42.65	1.55	+37 22 38.9	38.4	29.4
29	o Ceti	9	15 11.77	− 0.03	**49.74**	2 14 22.04	4.34	356 35 9.45	19.25	52.21	− 3 25 38.2	35.7	15.0
30	B. D.+36° 470	9	18 7.95	+ 0.33	49.70	2 17 18.58	5.48	37 6 43.22	49.58	1.81	+37 6 45.7	45.0	28.8
31	B. D.+35° 470	9	20 15.57	0.31	49.70	2 19 26.18	5.44	35 31 35.38	43.90	3.40	35 31 36.3	37.7	28.1
32	B. D.+34° 442	9	23 21.74	+ 0.30	−49.70	2 22 32.34	−5.45	34 51 26.82	35.60	4.08	+ 34 51 27.1	28.7	−27.6
33	B. D.+34° 448	9	25 58.98	+ 0.30	−49.70	2 25 9.58	−5.46	34 29 42.50	50.02	4.44	+34 29 42.4	42.8	−27.2
34	B. D.+33° 463	9	29 35.12	0.29	49.71	2 28 45.70	5.47	33 39 9.35	16.82	5.31	33 39 8.4	8.7	26.6
35	B. D.+32° 478	9	33 38.42	0.28	49.71	2 32 48.99	5.48	32 59 39.82	.....	5.96	32 59 38.2	....	26.0
36	B. D.+32° 484	9	34 44.52	0.28	49.71	2 33 55.09	5.47	32 23 31.35	36.22	6.57	32 23 29.1	26.9	25.7
37	B. D.+33° 494	9	38 11.69	0.29	49.71	2 37 22.27	5.56	33 45 20.30	27.35	5.19	33 45 19.5	19.4	25.7
38	μ Ceti	9	40 26.61	+ 0.07	−**49.76**	2 39 36.97	−4.82	9 42 18.18	24.80	32.11	+ 9 41 50.6	49.8	−17.5
39	B. D.+32° 508	9	43 56.12	+ 0.28	−49.71	2 43 6.69	−5.57	32 26 9.28	15.92	6.53	+32 26 7.1	6.6	−24.7
40	B. D.+31° 490	9	45 18.28	0.27	49.71	2 44 28.84	5.54	31 34 3.28	9.72	7.42	31 33 60.2	59.5	24.3
41	B. D.+31° 497	8	48 16.90	0.26	49.71	2 47 27.45	5.56	31 14 36.20	43.35	7.75	31 14 32.7	32.8	23.8
42	B. D.+30° 465	9	50 45.63	0.26	49.71	2 49 56.18	5.58	31 10 57.58	64.10	7.81	31 10 54.0	53.5	23.6
43	B. D.+31° 511	8	53 0.79	0.27	49.71	2 52 11.35	5.62	31 37 23.48	29.15	7.36	31 37 20.4	18.9	23.4
44	B. D.+31° 524	9	56 5.57	+ 0.27	−49.71	2 55 16.13	−5.65	31 33 57.68	63.98	7.42	+31 33 54.5	53.7	−23.1
45	B. D.+30° 484	9	59 46.42	+ 0.26	−49.71	2 58 56.97	−5.64	30 39 22.98	28.98	8.35	+30 39 18.9	17.7	−22.4
46	β Persei	9	2 35.07	0.37	**49.72**	3 1 45.72	6.14	40 34 33.62	41.58	1.66	40 34 39.5	40.3	25.0
47	δ Arietis	9	6 49.42	0.15	**49.72**	3 5 59.85	5.29	19 21 28.22	35.55	20.45	19 21 12.1	12.2	17.9
48	ζ Arietis	9	10 3.99	0.16	**49.70**	3 9 14.43	5.34	20 40 58.68	65.65	18.97	20 40 44.1	43.8	18.0
49	B. D.+28° 516	9	15 12.31	0.24	49.72	3 14 22.83	5.69	28 41 35.62	42.28	10.39	28 41 29.5	28.4	19.9
50	B. D.+26° 550	9	18 27.56	+ 0.22	−49.72	3 17 38.06	−5.65	27 3 11.58	17.92	12.10	27 3 3.8	2.9	−19.0

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
13 5 10	.....	....	− 0.6
5 46	75.74	− 0.4	− 0.6
6 13	75.76	− 0.1	+ 0.2
15 1 51	75.18	+11.0	10.4
2 27	75.19	+10.5	9.8
2 42	.....	....	9.6
3 4	.....	....	+ 9.2

Bisections are made at II and V, except as noted below.

20. Bisections at c_1, c_2, c_4 and c_5.
23. Bisections at III and V.
35. Bisection at II.
38. Bisections at II and VI.
49. Bisections at II and VII.

Notes.

1-19. Seeing 4.
20-50. Seeing 3-4.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1-19, from stars	*	*
20, from nadir......	+3.96	−4.76
21-50, from stars	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
17	3.3	−2.8
18	3.7	4.4
19	2.7	4.0
21	2.1	3.5
22	3.2	3.6
23	4.3	3.4
24	4.0	3.4
29	3.0	[6.4]
38	[1.6]	4.5
46	2.5	5.2
47	4.0	3.0
48	+3.1	−3.5

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ξ Tauri	9	22 39.65	+0.07	−49.74	3 21 50.00	−5.06	9 23 45.95	52.18	32.62	+ 9 23 17.7	16.7	−12.9
2	B. D.+27° 515[1]	9	26 12.86	0.22	49.72	3 25 23.36	5.72	27 14 15.80	23.08	11.92	27 14 8.1	8.3	18.1
3	B. D.+27° 529	9	30 56.83	0.22	49.72	3 30 7.33	5.76	27 16 2.92	8.62	11.89	27 15 55.2	53.9	17.5
4	B. D.+24° 533	9	36 15.39	0.20	49.72	3 35 25.87	5.69	24 41 31.30	39.18	14.62	24 41 20.9	21.7	16.1
5	B. D.+25° 593	9	38 2.48	0.20	49.72	3 37 12.96	5.73	25 22 10.62	18.68	13.90	25 22 0.9	1.8	16.1
6	B. D.+26° 608	9	40 7.36	0.22	49.72	3 39 17.86	5.80	26 35 4.75	11.58	12.62	26 34 56.3	56.0	16.2
7	B. D.+24° 562	9	41 57.02	+0.20	−49.72	3 41 7.50	−5.71	24 13 1.80	9.52	15.14	+24 12 50.9	51.4	−15.2
8	B. D.+23° 562	9	44 23.91	+0.19	−49.72	3 43 34.38	−5.72	23 56 59.38	66.78	15.43	+23 56 48.2	48.4	−14.8
9	B. D.+25° 631	9	46 50.86	0.21	49.72	3 46 1.35	5.81	25 42 20.48	27.58	13.56	25 42 11.1	11.0	15.0
10	B. D.+25° 639	9	48 23.45	0.21	49.72	3 47 33.94	5.82	25 38 41.02	48.20	13.62	25 38 31.6	31.6	14.8
11	B. D.+23° 589	9	51 36.07	0.19	49.72	3 50 46.54	5.74	23 18 40.70	47.82	16.13	23 18 28.8	28.7	13.7
12	B. D.+23° 594	8	53 18.00	0.19	49.72	3 52 28.47	5.77	23 48 3.48	11.55	15.61	23 47 52.1	53.0	13.6
13	B. D.+22° 613	9	55 6.68	0.18	49.72	3 54 17.14	5.75	23 7 22.12	28.82	16.34	23 7 10.0	9.5	13.2
14	B. D.+23° 613	9	0 12.38	+0.19	−49.72	3 59 22.85	−5.80	23 31 49.75	57.82	15.91	+23 31 38.0	38.9	−12.6
15	B. D.+21° 593	9	3 15.41	+0.17	−49.72	4 2 25.86	−5.75	21 45 41.40	49.08	17.85	+21 45 27.7	28.3	−11.7
16	B. D.+23° 642	9	7 21.81	0.19	49.72	4 6 32.28	5.84	23 19 24.52	32.08	16.14	23 19 12.5	13.0	11.6
17	B. D.+22° 654	9	8 57.62	0.18	49.72	4 8 8.08	5.81	22 27 35.58	42.98	17.09	22 27 22.6	22.9	11.1
18	B. D.+22° 663	8	10 58.86	0.18	49.72	4 10 9.32	5.83	22 43 24.18	31.78	16.80	22 43 11.5	12.0	10.9
19	B. D.+21° 617	9	12 50.36	0.18	49.72	4 12 0.82	5.82	22 6 53.32	60.18	17.48	22 6 40.0	39.7	10.5
20	B. D.+21° 623	9	14 36.81	0.17	49.72	4 13 47.26	5.80	21 32 19.50	25.30	18.11	21 32 5.5	4.2	10.1
21	B. D.+20° 741	8	16 36.69	+0.16	−49.72	4 15 47.13	−5.79	20 57 23.85	31.12	18.76	+20 57 9.2	9.4	− 9.7
22	B. D.+21° 641	9	19 13.63	+0.17	−49.72	4 18 24.08	−5.83	21 30 41.40	48.08	18.15	+21 30 27.4	26.9	− 9.4
23	B. D.+20° 778	9	29 47.22	0.16	49.71	4 28 57.67	5.86	20 54 6.65	14.10	18.85	20 53 52.0	52.2	7.8
24	B. D.+19° 744	8	31 38.47	0.15	49.71	4 30 48.91	5.81	19 33 42.28	48.48	20.36	19 33 26.1	25.1	7.2
25	B. D.+18° 666	9	33 37.09	0.14	49.71	4 32 47.52	5.78	18 32 25.10	30.05	21.53	18 32 7.7	5.5	6.7
26	B. D.+18° 684	9	37 56.71	0.14	49.71	4 37 7.14	5.80	18 32 20.88	26.48	21.53	18 32 3.5	1.9	6.1
27	B. D.+18° 727	9	42 13.18	0.14	49.71	4 41 23.61	5.81	18 18 51.12	56.78	21.80	18 18 33.4	31.9	5.4
28	B. D.+18° 738	9	45 22.73	+0.15	−49.71	4 44 33.17	−5.86	19 1 32.08	39.40	20.98	+19 1 15.2	15.3	− 5.2
29	B. D.+17° 814	9	51 36.71	+0.14	−49.71	4 50 47.14	−5.84	17 51 4.12	12.32	22.34	+17 50 45.9	46.9	− 4.0
30	B. D.+18° 765	9	53 25.61	0.15	49.71	4 52 35.05	5.88	18 50 40.68	46.22	21.20	18 50 23.5	21.9	4.0
31	ι Tauri	9	58 2.63	0.17	49.70	4 57 13.09	6.02	21 27 8.20	15.58	18.26	21 26 54.0	54.3	3.8
32	B. D.+15° 749	9	3 17.05	0.12	49.70	5 2 27.47	5.80	15 43 49.10	55.85	24.85	15 43 28.3	27.8	1.9
33	B. D.+15° 759	9	6 52.27	0.12	49.70	5 6 2.69	5.82	15 55 42.72	49.98	24.63	15 55 22.2	22.2	1.4
34	B. D.+16° 735	9	9 29.28	0.13	49.70	5 8 39.71	5.85	16 34 3.92	10.55	23.86	16 33 44.1	43.3	1.2
35	B. D.+16° 742	8	12 15.44	+0.12	−49.70	5 11 25.86	−5.85	16 14 52.80	59.22	24.25	+16 14 32.6	31.8	− 0.7
36	B. D.+15° 790	9	15 54.71	+0.12	−49.70	5 15 5.13	−5.84	15 32 28.90	35.02	25.10	+15 32 7.9	6.8	− 0.1
37	B. D.+15° 805	9	18 42.08	0.12	49.70	5 17 52.50	5.86	15 57 5.02	11.32	24.61	15 56 44.4	43.6	+ 0.2
38	B. D.+15° 809	8	20 17.70	0.12	49.70	5 19 28.12	5.84	15 16 35.48	42.65	25.42	15 16 14.0	14.1	0.6
39	B. D.+15° 822	9	22 26.17	0.12	49.70	5 21 36.59	5.84	15 10 38.20	45.50	25.54	15 10 16.6	16.8	0.9
40	B. D.+15° 837	9	25 38.17	0.12	49.70	5 24 48.59	5.86	15 17 19.92	26.45	25.41	15 16 58.5	57.9	1.3
41	B. D.+14° 939	9	27 59.51	0.11	49.70	5 27 9.92	5.82	14 9 15.55	23.15	26.80	14 8 52.7	53.2	1.9
42	B. D.+13° 930	9	30 36.99	+0.10	−49.69	5 29 47.40	−5.79	13 13 32.62	38.70	27.95	+13 13 8.7	7.6	+ 2.4
43	σ Orionis	9	34 38.49	−0.02	−49.70	5 33 48.78	−5.24	357 21 12.78	21.92	51.48	− 2 39 34.6	32.7	+ 5.9
44	B. D.+13° 964	9	38 18.99	+0.10	49.69	5 37 29.40	5.81	13 6 9.58	16.98	28.11	+13 5 45.5	45.7	3.5
45	B. D.+12° 882	9	40 0.12	0.09	49.69	5 39 10.52	5.79	12 22 42.25	48.42	29.02	12 22 17.2	16.2	3.9
46	B. D.+12° 896	9	42 30.53	0.09	49.69	5 41 40.93	5.79	12 18 29.15	37.05	29.11	12 18 4.0	4.8	4.2
47	B. D.+12° 910	9	44 31.65	0.09	49.69	5 43 42.05	5.79	12 7 25.28	32.75	29.34	12 6 59.9	60.3	4.6
48	B. D.+11° 960	9	48 32.75	0.09	49.68	5 47 43.16	5.79	11 47 58.50	66.82	29.76	11 47 32.7	33.9	5.2
49	B. D.+12° 950	9	50 56.17	+0.10	−49.68	5 50 6.59	−5.84	12 59 23.12	31.18	28.26	+12 58 58.9	59.7	+ 5.3
50	B. D.+12° 968	9	54 11.07	+0.10	−49.68	5 53 21.49	−5.84	12 48 13.42	21.70	28.50	+12 47 48.9	49.9	+ 5.8
51	B. D.+11° 1009	8	58 45.31	0.09	49.68	5 57 55.72	5.81	11 41 16.58	24.70	29.92	11 40 50.6	51.5	6.5
52	ν Orionis	9	2 47.24	0.11	49.65	6 1 57.67	5.94	14 47 5.52	.....	26.05	14 46 43.4	....	6.7
53	η Geminorum	8	9 46.29	0.18	49.68	6 8 56.80	6.28	22 32 16.25	21.88	17.10	22 32 3.0	1.5	6.5
54	μ Geminorum	9	17 50.46	0.18	49.67	6 17 0.97	6.31	22 33 59.32	67.52	17.07	22 33 46.1	47.2	7.8
55	8 Monocerotis	9	19 23.42	+0.03	−49.69	6 18 33.78	−5.60	4 39 2.48	10.28	39.62	+ 4 38 26.8	27.4	+10.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
15 3 24	75.19	9.6	8.8
4 1	75.18	9.0	8.0
4 25	.....	...	7.4
5 17	.....	...	6.6
6 13	75.14	7.2	6.1

Bisections are made at II and V, except as noted below.

34. Bisections at II and VI.
52. Bisection at II.

Notes.

18, 30. Very faint.
1–55. Seeing 3–4.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	[+0.9]	−4.9
31	2.4	4.7
43	3.8	4.9
52	2.3	...
53	2.3	3.0
54	2.9	5.0
55	+3.2	−4.2

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–55, from stars......	*	*

*Interpolated from diagram.

1901 JANUARY 16. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0{}'$ SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	α Ursæ Minoris.....	9	23 33.56	+34.26	[−48.94]	1 23	....	88 46 0.38	8.95	66.22	+88 47 10.9	10.7	....
2	α Trianguli.........	9	48 17.20	0.40	49.98	1 47 27.60	−4.87	29 6 4.52	12.08	9.70	29 5 60.0	59.0	−28.4
3	β Arietis...........	9	50 1.30	0.26	50.04	1 49 11.56	4.68	20 19 48.38	57.20	18.86	20 19 34.8	35.0	25.4
4	γ Andromedæ......	9	58 40.27	0.65	50.00	1 57 50.92	5.42	41 51 23.55	31.90	2.88	41 51 31.4	31.4	31.9
5	α Arietis...........	9	2 26.62	0.30	49.99	2 1 36.92	4.87	22 59 58.18	66.75	16.02	22 59 47.3	47.4	25.4
6	B. D.+36° 426	9	5 32.32	0.55	50.00	2 4 42.87	5.32	37 14 12.42	20.52	1.65	37 14 15.8	15.5	30.0
7	B. D. +38° 434	9	7 35.32	+ 0.57	−50.00	2 6 45.89	−5.39	38 25 25.22	33.38	0.49	+38 25 29.8	29.5	−30.2
8	B. D. +37° 512	9	10 20.18	+ 0.56	−50.00	2 9 30.74	−5.41	37 55 29.58	36.82	0.98	+37 55 33.6	32.4	−29.8
9	B. D. +37° 516	9	12 9.53	+ 0.55	50.00	2 11 20.08	5.40	37 22 34.88	42.72	1.51	+37 22 38.4	37.8	29.4
10	ο Ceti...............	9	15 12.02	− 0.06	49.98	2 14 21.96	4.32	356 35 8.08	16.85	51.16	− 3 25 37.9	37.6	14.9
11	B. D. +35° 470	9	20 15.54	+ 0.51	50.00	2 19 26.05	5.43	35 31 35.30	43.82	3.33	+35 31 36.9	37.1	28.1
12	B. D. +34° 442	9	23 21.73	0.49	50.00	2 22 32.22	5.44	34 51 27.30	36.50	3.99	34 51 28.3	29.1	27.6
13	B. D. +34° 448	9	25 59.02	0.49	50.00	2 25 9.51	5.45	34 29 42.58	50.25	4.35	34 29 43.2	42.5	27.2
14	B. D. +33° 463	9	29 35.17	+ 0.47	−49.99	2 28 45.65	−5.46	33 39 9.02	16.48	5.20	+33 39 8.7	7.9	−26.6
15	B. D. +32° 478	9	33 38.46	+ 0.46	−49.99	2 32 48.93	−5.47	32 59 39.32	46.30	5.84	+32 59 38.4	37.1	−26.0
16	B. D. +32° 484	9	34 44.56	0.45	49.99	2 33 55.02	5.46	32 23 30.28	36.95	6.44	32 23 28.7	27.1	25.6
17	B. D. +32° 490	9	37 33.51	0.45	49.99	2 36 43.97	5.49	32 29 1.12	7.55	6.35	32 28 59.6	57.8	25.4
18	μ Ceti...............	9	40. 26.79	0.11	49.99	2 39 36.91	4.81	9 42 16.50	24.45	31.46	9 41 50.0	49.6	17.4
19	B. D. +32° 508	9	43 56.22	0.44	49.99	2 43 6.67	5.55	32 26 8.68	16.22	6.40	32 26 7.1	6.4	24.7
20	B. D. +31° 490	9	45 18.31	0.43	49.99	2 44 28.75	5.53	31 34 1.32	9.42	7.26	31 33 58.8	58.8	24.3
21	B. D. +32° 522	9	48 29.87	+ 0.44	−49.99	2 47 40.32	−5.60	32 30 59.95	67.45	6.33	+32 30 58.4	57.7	−24.2
22	B. D. +30° 465	9	50 45.68	+ 0.42	−49.99	2 49 56.11	−5.57	31 10 56 92	64.68	7.65	+31 10 54.1	53.6	−23.6
23	B. D. +31° 511	9	53 0.77	0.43	49.99	2 52 11.21	5.61	31 37 22.85	29.70	7.21	31 37 20.4	19.1	23.4
24	B. D. +31° 524	9	56 5.62	0.43	49.99	2 55 16.06	5.63	31 33 57.65	64.92	7.27	31 33 55.1	54.3	23.1
25	B. D. +30° 484	9	59 46.48	0.41	49.99	2 58 56.90	5.63	30 39 22.70	29.98	8.18	30 39 19.2	18.4	22.4
26	β Persei............	9	2 35.13	0.60	50.08	3 1 45.74	6.12	40 34 33.00	41.38	1.63	40 34 39.2	39.6	25.0
27	δ Arietis............	9	6 49.58	0.24	49.98	3 5 59.83	5.28	19 21 27.82	35.50	20.04	19 21 12.5	12.1	17.9
28	ζ Arietis............	9	10 4.14	+ 0.25	−49.95	3 9 14.40	−5.33	20 40 58.18	66.22	18.60	+ 20 40 44.3	44.2	−17.9
29	B. D. +28° 516	9	15 12.44	+ 0.37	−49.99	3 14 22.82	−5.68	28 41 35.40	41.82	10.19	+28 41 29.8	28.2	−19.9
30	B. D. +26° 550	9	18 27.68	0.35	49.98	3 17 38.05	5.64	27 3 10.25	17.45	11.88	27 3 3.0	2.2	19.0
31	ξ Tauri.............	9	22 39.86	0.10	49.99	3 21 49.98	5.05	9 23 44.88	51.35	32.03	9 23 17.6	16.0	12.8
32	B. D. +27° 515[1]	9	26 12.92	0.35	49.98	3 25 23.29	5.71	27 14 14.90	23.68	11.70	27 14 7.8	8.6	18.1
33	B. D.+27° 529	9	30 56.94	0.35	49.98	3 30 7.31	5.75	27 16 1.92	8.18	11.67	27 15 54.8	53.1	17.5
34	B. D. +26° 590	9	34 25.04	+ 0.34	−49.98	3 33 35.40	−5.76	26 54 12.82	19.68	12.04	+26 54 5.3	4.3	−17.0
35	B. D. +25° 593	9	38 2.54	+ 0.32	−49.98	3 37 12.88	−5.72	25 22 11.18	18.70	13.64	+25 22 2.1	1.7	−16.1
36	B. D. +26° 608	9	40 7.44	0.34	49.98	3 39 17.80	5.79	26 35 3.55	11.15	12.38	26 34 55.7	55.4	16.2
37	B. D. +24° 562	9	41 57.11	0.30	49.98	3 41 7.43	5.70	24 13 1.65	10.22	14.85	24 12 51.3	52.0	15.2
38	B. D. +23° 562	9	44 23.98	0.30	49.98	3 43 34.30	5.71	23 56 58.68	66.90	15.13	23 56 48.1	48.4	14.8
39	B. D. +25° 631	9	46 50.97	0.32	49.98	3 46 1.31	5.80	25 42 20.55	27.45	13.29	25 42 11.7	10.8	15.0
40	B. D. +25° 639	9	48 23.58	+ 0.32	−49.98	3 47 33.92	−5.81	25 38 40.70	47.52	13.36	+25 38 31.8	30.8	−14.8
41	B. D. +23° 589	9	51 36.16	+ 0.28	−49.98	3 50 46.46	−5.73	23 18 39.20	47.75	15.81	+23 18 27.8	28.6	−13.7
42	B. D. +23° 594	9	53 18.08	0.29	49.98	3 52 28.39	5.76	23 48 3.75	11.75	15.30	23 47 52.9	53.1	13.6
43	B. D. +22° 613	9	55 6.81	0.28	49.98	3 54 17.11	5.74	23 7 20.42	28.32	16.01	23 7 8.9	8.9	13.2
44	B. D. +23° 613	9	0 12.52	0.29	49.98	3 59 22.83	5.80	23 31 48.92	57.80	15.58	23 31 37.7	38.8	12.6
45	B. D. +21° 593	9	3 15.56	0.26	49.98	4 2 25.84	5.74	21 45 41.05	49.55	17.48	21 45 27.9	28.7	11.7
46	B. D. +23° 632	9	5 12.96	+ 0.29	−49.98	4 4 23.27	−5.84	23 43 30.00	37.30	15.38	+23 43 19.0	18.5	−12.0
47	B. D. +23° 642	9	7 21.95	+ 0.28	−49.98	4 6 32.25	−5.83	23 19 23.48	32.45	15.81	+23 19 12.0	13.3	−11.6
48	B. D. +22° 654	9	8 57.75	0.27	49.98	4 8 8.04	5.80	22 27 35.48	43.12	16.73	22 27 23.1	23.0	11.1
49	B. D. +22° 663	9	10 59.02	0.27	49.97	4 10 9.32	5.83	22 43 23.12	31.68	16.45	22 43 11.0	11.8	10.9
50	B. D. +21° 617	9	12 50.45	0.26	49.97	4 12 0.74	5.81	22 6 51.55	60.38	17.10	22 6 38.8	39.9	10.5
51	B. D. +21° 623	6	14 36.97	0.26	49.97	4 13 47.26	5.80	21 32 19.28	27.10	17.73	21 32 5.7	5.8	10.1
52	B. D. +20° 744	9	17 25.19	+ 0.24	−49.97	4 16 35.46	−5.77	20 35 29.60	38.00	18.78	+20 35 15.1	15.8	− 9.4

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
16 1 18	74.60	15.5	14.7
2 17	74.62	14.2	13.4
2 58	.....	....	13.0
3 21	74.66	12.7	11.9

Bisections are made at II and V, except as noted below.

1. Bisections at c_1, c_2, c_4 and c_5.
7, 16. Bisections at III and V.
51. Bisections at IV and VI.

Notes.
1–52. Seeing 3.
49. Unsteady

Adopted Equator Point Corrections.

	A.	B.
	″	″
1, from nadir......	+3.40	−4.99
2–52, from stars	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
2	+2.8	−4.5
3	4.1	4.4
4	4.4	3.8
5	4.9	3.4
10	3.2	5.2
18	2.6	5.0
26	3.2	5.0
27	4.0	3.4
28	3.2	4.5
31	[+1.3]	−4.8

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D. +21° 641	9	19 13.79	+0.26	−49.97	4 18 24.08	−5.82	21 30 40.58	48.62	17.75	+21 30 27.1	27.5	− 9.4
2	B. D. +20° 778	9	29 47.37	0.24	49.97	4 28 57.64	5.85	20 54 5.40	14.50	18.42	20 53 51.1	52.7	7.8
3	B. D. +19° 744	9	31 38.62	0.23	49.97	4 30 48.88	5.81	19 33 41.45	47.32	19.91	19 33 25.7	24.0	7.2
4	B. D. +18° 666	9	33 37.21	0.21	49.97	4 32 47.45	5.77	18 32 23.20	30.70	21.05	18 32 6.3	6.3	6.7
5	B. D. +18° 684	9	37 56.89	0.21	49.97	4 37 7.13	5.80	18 32 19.45	27.15	21.05	18 32 2.6	2.7	6.1
6	B. D. +18° 727	9	42 13.38	0.21	49.97	4 41 23.62	5.81	18 18 51.30	57.25	21.31	18 18 34.2	32.6	5.4
7	B. D. +18° 738	9	45 22.98	+0.22	−49.97	4 44 33.23	−5.85	19 1 32.22	39.05	20.52	+19 1 15.9	15.2	− 5.1
8	π^5 Orionis	9	49 57.73	+0.01	**−49.96**	4 49 7.77	−5.25	2 17 16.05	25.10	42.15	+ 2 16 38.1	39.6	− 0.5
9	B. D. +17° 814	9	51 36.89	0.20	49.97	4 50 47.12	5.83	17 51 4.42	12.28	21.85	17 50 46.6	47.1	4.0
10	ι Tauri	9	58 2.82	0.25	**49.98**	4 57 13.10	6.01	21 27 7.38	15.58	17.86	21 26 53.6	54.4	3.8
11	B. D. +15° 749	9	3 17.19	0.17	49.96	5 2 27.40	5.79	15 43 48.70	55.08	24.32	15 43 28.4	27.4	1.8
12	B. D. +15° 759	9	6 52.52	0.17	49.96	5 6 2.73	5.81	15 55 42.38	49.55	24.10	15 55 22.3	22.1	1.4
13	B. D. +16° 742	9	12 15.62	+0.18	49.96	5 11 25.84	5.85	16 14 51.60	58.80	23.74	+16 14 31.8	31.7	0.7
14	τ Orionis	7	13 40.21	−0.10	**−50.02**	5 12 50.15	−5.05	353 4	.....	.....	− 6 56	....	....
15	B. D. +15° 790	9	15 54.89	+0.17	−49.96	5 15 5.10	−5.83	15 32 28.28	35.52	24.58	+15 32 7.6	7.6	0.0
16	B. D. +15° 809	9	20 17.79	0.16	49.96	5 19 27.99	5.84	15 16 34.88	42.55	24.91	15 16 13.9	14.3	+ 0.6
17	B. D. +15° 822	9	22 26.37	0.16	49.96	5 21 36.57	5.84	15 10 37.22	45.80	25.03	15 10 16.1	17.4	1.0
18	B. D. +14° 939	9	27 59.71	0.15	49.95	5 27 9.91	5.82	14 9 16.50	23.18	26.26	14 8 54.1	53.6	1.9
19	B. D. +13° 930	9	30 37.17	+0.14	49.95	5 29 47.36	5.79	13 13 31.68	39.10	27.39	+13 13 8.2	8.4	2.5
20	σ Orionis	9	34 38.74	−0.05	**−49.91**	5 33 48.74	5.25	357 21 11.32	21.50	50.44	− 2 39 35.2	32.3	+ 6.0
21	B. D. +13° 964	9	38 19.16	+0.14	−49.95	5 37 29.35	−5.81	13 6 8.45	16.45	27.54	+13 5 44.7	45.6	+ 3.6
22	B. D. +12° 884	9	40 19.29	0.13	49.95	5 39 29.47	5.80	12 51 3.58	11.90	27.85	12 50 39.5	40.7	3.9
23	B. D. +12° 896	9	42 30.74	0.13	49.95	5 41 40.92	5.79	12 18 29.20	36.62	28.52	12 18 4.5	4.8	4.3
24	B. D. +12° 910	9	44 31.83	0.12	49.95	5 43 42.00	5.79	12 7 25.80	34.02	28.75	12 7 0.8	1.9	4.6
25	B. D. +12° 937	9	49 17.85	0.13	49.95	5 48 28.03	5.81	12 24 39.35	46.68	28.41	12 24 14.6	14.9	5.2
26	B. D. +11° 970	9	50 58.57	+0.12	−49.94	5 50 8.75	−5.79	11 47 52.28	60.30	29.17	+11 47 26.8	27.8	+ 5.5
27	B. D. +11° 986	9	54 41.08	+0.12	−49.94	5 53 51.26	−5.80	11 45 36.22	45.12	29.22	+11 45 10.7	12.6	+ 6.0
28	B. D. +11° 1002	9	57 25.54	0.12	49.94	5 56 35.72	5.80	11 39 38.68	46.02	29.34	11 39 13.0	13.3	6.4
29	ν Orionis	9	2 47.43	0.15	**49.89**	6 1 57.64	5.93	14 47 6.05	.....	25.52	14 46 44.2	....	6.8
30	η Geminorum	9	9 46.44	0.25	**49.90**	6 8 56.75	6.28	22 32 15.65	22.58	16.75	22 32 2.4	2.4	6.5
31	μ Geminorum	9	17 50.64	0.25	**49.93**	6 17 0.96	6.30	22 33 59.40	66.32	16.72	22 33 46.2	46.2	7.8
32	8 Monocerotis	9	19 23.74	+0.04	**−50.02**	6 18 33.85	−5.60	4 39 2.72	10.20	38.82	+ 4 38 27.5	28.0	+10.3

1901 JANUARY 18. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

33	α Ursæ Minoris	9	24 5.61	+0.74	**[−49.88]**	1 23	....	88 45 58.85	.....	71.75	+88 47 14.3	....	....
34	α Trianguli	9	48 17.41	0.00	**49.82**	1 47 27.56	−4.84	29 6 5.38	11.72	10.54	29 5 59.5	58.8	−28.3
35	β Arietis	9	50 1.37	−0.01	**49.86**	1 49 11.52	4.66	20 19 50.02	57.48	20.48	20 19 34.3	34.6	25.2
36	γ Andromedæ	9	58 40.74	0.00	**49.86**	1 57 50.89	5.38	41 51 23.85	31.00	3.13	41 51 31.6	31.7	31.9
37	α Arietis	9	2 26.76	0.00	**49.86**	2 1 36 91	4.84	23 0 0.22	7.68	17.41	22 59 47.6	47.9	25.3
38	B. D. +36° 426	9	5 32.74	0.00	−49.86	2 4 42.88	−5.28	37 14 12.45	21.08	1.79	+37 14 15.3	16.9	−29.9
39	B. D. +38° 434	7	7 35.75	0.00	−49.86	2 6 45.89	5.36	38 25 24.58	33.38	0.53	+38 25 28.6	30.4	−30.1
40	B. D. +37° 512	9	10 20.61	0.00	49.86	2 9 30.75	5.37	37 55 29.45	36.35	1.06	37 55 32.9	32.9	29.7
41	B. D. +37° 516	9	12 9 97	0.00	49.86	2 11 20.11	5.37	37 22 35.30	41.88	1.65	+37 22 38.2	37.8	29.4
42	ο Ceti	9	15 11.82	−0.01	**49.85**	2 14 21.95	4.30	356 35 11.72	20.85	55.60	− 3 25 39.1	37.1	14.7
43	B. D. +34° 435	9	21 3.49	0.00	49.86	2 20 13.63	5.36	34 24 36.20	43.50	4.82	+34 24 35.9	36.3	27.6
44	B. D. +34° 442	9	23 22.19	0.00	49.86	2 22 32.33	−5.40	34 51 27.28	35.68	4.34	+34 51 27.5	28.9	−27.5
45	B. D. +35° 497	9	26 55.14	0.00	−49.87	2 26 5.27	−5.47	35 42 40.92	47.55	3.43	+35 42 42.0	41.7	−27.4
46	B. D. +33° 463	9	29 35.53	0.00	49.87	2 28 45.66	5.42	33 39 9.15	15.92	5.65	33 39 8.1	7.9	26.5
47	B. D. +34° 483	9	33 36.48	0.00	49.87	2 32 46.61	5.51	34 50 48.35	56.15	4.36	34 50 48.4	49.4	26.5
48	B. D. +32° 484	9	34 44.86	0.00	49.87	2 33 54.99	5.43	32 23 30.55	36.35	7.00	32 23 28.0	27.0	25.6
49	μ Ceti	9	40 26.78	−0.01	**−49.88**	2 39 36.90	−4.90	9 42 18.98	25.68	34.20	+ 9 41 49.4	49.0	−17.3

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
16 4 36	74.69	+11.5	+11.6
5 0	.....	....	11.2
5 24	74.70	10.5	10.4
6 13	74.70	+ 9.7	+10.1
18 1 20	75.55	− 4.4	− 3.0
2 4	75.58	− 3.8	− 4.9

Bisections are made at II and V, except as noted below.

29. Bisection at II.
33. Bisections at c_1 and IV.
39. Bisections at IV and V.
48. Bisections at III and V.

Notes.

1–32, 33–49. Seeing 3.
14. Observation hurried.
26. Faint; very poor.
27. Poor.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–32, from stars	*	*
33, from nadir	+2.89	....
34–49, from stars	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
8	+2.8	−5.8
10	2.8	5.1
20	[4.1]	[5.6]
29	1.2	...
30	2.6	4.0
31	2.5	4.1
32	2.1	5.0
34	2.7	3.4
35	3.9	3.2
36	3.8	3.1
37	4.1	3.0
42	3.8	4.9
49	+2.7	−3.6

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+32° 508	9	43 56.53	0.00	−49.87	2 43 6.66	−5.52	32 26 8.85	15.52	6.95	+32 26 6.4	6.1	24.6
2	B. D.+31° 490	9	45 18.63	0.00	49.87	2 44 28.76	5.50	31 34 2.55	9.55	7.90	31 33 59.1	59.2	24.2
3	B. D.+30° 465	9	50 46.01	0.00	49.87	2 49 56.14	5.54	31 10 57.70	63.85	8.32	31 10 53.9	53.0	23.5
4	B. D.+31° 511	9	53 1.11	0.00	49.87	2 52 11.24	5.58	31 37 23.00	29.22	7.84	31 37 19.6	18.9	23.4
5	B. D.+31° 524	9	56 5.96	0.00	49.88	2 55 16.08	5.60	31 33 58.18	64.05	7.90	31 33 54.8	53.7	23.0
6	B. D.+30° 484	9	59 46.82	0.00	49.88	2 58 56.94	5.60	30 39 22.22	29.15	8.89	30 39 17.7	17.8	22.3
7	β Persei	9	2 35.61	0.00	**−49.94**	3 1 45.73	−6.09	40 34 33.32	40.30	1.77	+40 34 39.4	39.6	−25.1
8	δ Arietis	9	6 49.71	−0.01	**−49.89**	3 5 59.82	−5.25	19 21 29.90	36.35	21.76	+19 21 12.6	12.1	−17.9
9	ζ Arietis	9	10 4.31	0.01	**49.89**	3 9 14.42	5.30	20 40 58.82	66.08	20.18	20 40 43.1	43.4	17.9
10	B. D.+26° 550	9	18 27.98	0.00	49.88	3 17 38.10	5.62	27 3 11.58	16.95	12.87	27 3 3.1	1.6	19.0
11	ξ Tauri	9	22 39.83	0.01	**49.87**	3 21 49.94	5.03	9 23 46.08	53.02	34.69	9 23 15.8	15.9	12.7
12	B. D.+27° 515[2]	9	26 14.08	0.00	49.88	3 25 24.20	5.68	27 14 16.20	22.90	12.67	27 14 7.8	7.7	18.1
13	B. D.+27° 529	9	30 57.17	0.00	49.88	3 30 7.29	5.72	27 16 3.05	8.50	12.64	27 15 54.7	53.4	17.5
14	B. D.+24° 537	9	38 40.30	−0.01	−49.88	3 37 50.41	−5.68	24 46 17.75	25.15	15.45	+24 46 6.6	7.2	−15.8
15	B. D.+25° 607	5	40 28.53	−0.01	−49.88	3 39 38.64	5.71	25 18 16.28	24.02	14.85	+25 18 5.7	6.7	−15.7
16	B. D.+24° 562	9	41 57.27	0.01	49.88	3 41 7.38	5.68	24 13 2.85	10.05	16.09	24 12 51.0	51.5	15.2
17	B. D.+23° 562	9	44 24.21	0.01	49.88	3 43 34.32	5.68	23 56 59.35	67.25	16.39	23 56 47.2	48.4	14.8
18	B. D.+25° 631	9	46 51.18	0.01	49.88	3 46 1.29	5.77	25 42 22.08	27.72	14.40	25 42 11.9	10.7	15.0
19	B. D.+25° 639	9	48 23.83	0.01	49.88	3 47 33.94	5.78	25 38 40.68	48.30	14.47	25 38 30.4	31.2	14.8
20	B. D.+23° 589	9	51 36.35	0.01	49.88	3 50 46.46	5.71	23 18 40.05	47.58	17.13	23 18 27.2	27.9	13.6
21	B. D.+23° 594	9	53 18.33	0.01	−49.88	3 52 28.44	−5.74	23 48 4.98	12.02	16.57	+23 47 52.6	52.9	−13.6
22	B. D.+22° 617[2]	9	55 56.47	−0.01	−49.88	3 55 6.58	−5.72	22 55 33.12	40.15	17.58	+22 55 19.8	20.0	−13.0
23	B. D.+23° 611	9	59 48.09	0.01	49.88	3 58 58.20	5.76	23 14 29.45	38.10	17.22	23 14 16.5	18.3	12.5
24	B. D.+21° 593	9	3 15.77	0.01	49.88	4 2 25.88	5.72	21 45 42.88	51.78	18.94	21 45 28.2	30.3	11.6
25	B. D.+23° 632	9	5 13.21	0.01	49.88	4 4 23.32	5.82	23 43 30.55	38.20	16.66	23 43 18.0	19.0	12.0
26	B. D.+23° 645	9	7 43.76	0.01	49.88	4 6 53.87	5.81	23 16 12.08	19.12	17.19	23 15 59.0	59.4	11.5
27	B. D.+22° 657	9	9 29.27	0.01	49.88	4 8 39.38	5.78	22 12 21.58	27.90	18.42	22 12 7.3	6.9	11.0
28	B. D.+22° 663	9	10 59.23	−0.01	−49.88	4 10 9.34	5.81	22 43 25.05	31.10	17.82	+22 43 11.4	10.7	−10.9
29	B. D.+21° 623	9	14 37.12	−0.01	49.88	4 13 47.23	−5.78	21 32 20.55	26.60	19.20	+21 32 5.5	4.8	−10.0
30	B. D.+21° 643	9	20 23.22	0.01	49.88	4 19 33.33	5.83	21 58 39.52	47.18	18.69	21 58 25.0	25.9	9.4
31	B. D.+20° 756	9	22 9.16	0.01	49.87	4 21 19.28	5.79	20 46 23.12	31.20	20.11	20 46 7.2	8.5	8.8
32	B. D.+20° 761	9	23 44.58	0.01	49.87	4 22 54.70	5.79	20 27 42.58	49.68	20.48	20 27 26.2	26.6	8.5
33	B. D.+21° 657	9	27 7.74	0.01	49.87	4 26 17.86	5.84	21 25 25.85	33.98	19.35	21 25 10.6	12.1	8.3
34	B. D.+19° 744	9	31 38.74	0.01	49.87	4 30 48.86	5.79	19 33 42.98	50.20	21.57	19 33 25.5	26.1	7.2
35	B. D.+18° 727	9	42 13.52	0.01	−49.86	4 41 23.65	5.79	18 18 51.92	57.18	23.08	+18 18 32.9	31.5	.4
36	B. D.+18° 738	7	45 23.01	0.01	49.86	4 44 33.14	−5.84	19 1 33.65	39.58	22.22	+19 1 15.4	14.8	−5.1
37	π^5 Orionis	9	49 57.60	0.01	**49.82**	4 49 7.73	5.24	2 17 20.40	26.72	45.63	2 16 38.9	38.6	0.3
38	B. D.+17° 814	9	51 36.96	0.01	49.86	4 50 47.09	5.82	17 51 7.75	14.02	23.65	17 50 48.2	47.8	3.9
39	B. D.+15° 749	8	3 17.26	0.01	49.85	5 2 27.40	5.78	15 43 50.45	56.32	26.31	15 43 28.1	27.3	1.8
40	B. D.+17° 867	8	7 19.79	0.01	49.84	5 6 29.94	5.86	17 8 48.18	54.58	24.53	+17 8 27.6	27.4	− 1.6
41	τ Orionis	9	13 39.96	0.01	**49.87**	5 12 50.11	5.04	353 3 45.80	53.28	63.23	− 6 57 13.3	12.6	+ 4.6
42	B. D.+15° 790	9	15 54.82	−0.01	−49.70	5 15 5.11	−5.82	15 32 31.12	36.28	26.55	+15 32 8.6	7.1	0.0
43	B. D.+15° 809	9	20 17.82	−0.01	−49.70	5 19 28.11	−5.83	15 16 38.05	43.95	26.89	+15 16 15.2	14.4	+ 0.7
44	B. D.+15° 822	9	22 26.27	0.01	49.70	5 21 36.56	5.83	15 10 39.80	46.40	27.01	15 10 16.7	16.7	1.0
45	χ Aurigæ	9	27 9.48	0.00	**49.70**	5 26 19.78	6.67	32 7	.....	.....	32 7	....	...
46	B. D.+14° 939	9	27 59.63	0.01	49.70	5 27 9.92	5.81	14 9 17.70	24.55	28.34	14 8 53.3	53.5	2.0
47	B. D.+13° 930	9	30 37.14	0.01	49.70	5 29 47.43	5.78	13 13 35.15	40.40	29.55	+13 13 9.5	8.2	2.6
48	σ Orionis	9	34 38.54	0.01	**49.71**	5 33 48.83	5.25	357 21 15.22	23.82	54.45	− 2 39 35.2	33.3	6.3
49	B. D.+13° 964	9	38 19.13	−0.01	49.70	5 37 29.42	−5.80	13 6 11.68	17.65	29.72	+13 5 45.9	45.3	+ 3.7
50	B. D.+13° 979	9	42 58.18	−0.01	−49.70	5 42 8.47	5.84	13 52 10.10	15.38	28.71	+13 51 45.2	44.0	+ 4.2
51	B. D.+12° 937	9	49 17.65	0.01	49.70	5 48 27.94	5.81	12 24 42.12	48.55	30.63	12 24 15.3	15.3	5.3
52	B. D.+11° 970	8	50 58.46	0.01	49.70	5 50 8.75	5.79	11 47 55.92	61.25	31.46	11 47 28.3	27.1	5.6
53	B. D.+11° 986	9	54 40.96	0.01	49.70	5 53 51.25	5.80	11 45 38.78	45.20	31.51	11 45 11.1	11.0	6.2
54	B. D.+11° 1002	9	57 25.43	0.01	49.70	5 56 35.72	5.80	11 39 40.45	47.98	31.64	11 39 12.6	13.7	6.6
55	ν Orionis	9	2 47.39	0.01	**49.68**	6 1 57.68	5.94	14 47 7.30	13.45	27.52	14 46 43.6	43.3	6.8
56	η Geminorum	9	9 46.48	−0.01	**−49.68**	6 8 56.77	−6.28	22 32 16.95	22.85	18.06	+22 32 2.5	2.1	+ 6.5

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
18 2 55	.....	...	−5.5
3 12	75.63	−4.6	...
3 58	.....	...	6.0
5 5	75.65	5.5	6.3
6 7	75.62	−5.7	−6.4

Bisections are made at II and V, except as noted below.

15, 17, 25, 36. Bisections at III and V.

Note.

1–56. Seeing 3.

Adopted Equator Point Corrections.

	A. ″	B. ″
1–56, from stars......	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
7	+2.8	−4.0
8	3.6	2.5
9	4.1	2.8
11	2.7	3.9
37	1.8	4.2
41	2.9	4.1
48	4.0	4.2
55	1.9	3.9
56	+2.6	3.0

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	μ Geminorum	9	17 50. 70	−0. 01	**−49.72**	6 17 0. 99	−6. 31	22 34 0. 62	7. 28	18. 03	+22 33 46. 2	46. 5	+ 7. 8
2	8 Monocerotis	9	19 23. 49	−0. 01	**−49.72**	6 18 33. 78	−5. 60	4 39 4. 55	12. 42	41. 83	+ 4 38 26. 5	27. 8	+10. 5

1901 JANUARY 19. CLAMP WEST.

LITTELL, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
3	α Ursæ Minoris	8	24 6. 42	+0. 19	[**−50.70**]	1 23	....	88 45 52. 11	60. 86	73. 96	+88 47 9. 5	10. 5	....
4	α Trianguli	9	48 17. 82	0. 01	**50.25**	1 47 27. 57	−4. 83	29 6 7. 25	13. 35	10. 84	29 5 59. 6	58. 3	−28. 3
5	β Arietis	9	50 1. 76	0. 01	**50.29**	1 49 11. 51	4. 64	20 19 52. 22	59. 92	21. 07	20 19 34. 4	34. 7	25. 2
6	γ Andromedæ	9	58 41. 11	0. 01	**50.26**	1 57 50. 84	5. 36	41 51 24. 95	33. 05	3. 22	41 51 31. 3	32. 1	31. 8
7	α Arietis	9	2 27. 15	0. 01	**50.28**	2 1 36. 88	4. 82	23 0 2. 18	9. 95	17. 89	22 59 47. 5	47. 9	25. 3
8	B. D.+36° 421	9	4 59. 55	0. 01	50. 29	2 4 9. 27	5. 23	36 19 29. 35	36. 98	2. 84	36 19 29. 7	29. 9	29. 6
9	B. D.+36° 435	9	7 40. 79	+0. 01	−50. 29	2 6 50. 51	−5. 28	36 54 31. 45	38. 88	2. 20	+36 54 32. 4	32. 5	−29. 6
10	B. D.+37° 512	9	10 21. 11	+0. 01	−50. 29	2 9 30. 83	−5. 35	37 55 30. 90	38. 15	1. 09	+37 55 32. 9	32. 8	−29. 7
11	B. D.+36° 453	9	12 4. 03	0. 01	50. 30	2 11 13. 74	5. 34	37 1 39. 65	47. 25	2. 07	+37 1 40. 7	40. 9	29. 2
12	o Ceti	.	.. ..	....	.....	2 14	....	356 35 15. 15	25. 02	57. 15	− 3 25 38. 6	36. 4	14. 7
13	B. D.+36° 473	9	18 32. 41	0. 01	50. 30	2 17 42. 12	5. 40	36 39 19. 88	26. 78	2. 48	+36 39 20. 5	20. 0	28. 5
14	B. D.+34° 435	9	21 3. 96	0. 01	50. 31	2 20 13. 66	5. 34	34 24 36. 65	45. 08	4. 95	34 24 34. 9	35. 8	27. 6
15	B. D.+35° 477	9	22 56. 92	0. 01	50. 31	2 22 6. 62	5. 40	35 29 30. 92	38. 22	3. 76	35 29 30. 3	30. 2	27. 7
16	B. D.+35° 497	9	26 55. 58	+0. 01	−50. 31	2 26 5. 28	−5. 46	35 42 41. 52	50. 05	3. 52	+35 42 41. 1	42. 2	−27. 4
17	B. D.+33° 463	8	29 35. 98	+0. 01	−50. 31	2 28 45. 68	−5. 41	33 39 10. 65	18. 52	5. 81	+33 39 8. 0	8. 4	−26. 5
18	B. D.+34° 476	9	32 40. 56	0. 01	50. 31	2 31 50. 26	5. 48	34 44 10. 05	18. 62	4. 60	34 44 8. 6	9. 7	26. 5
19	B. D.+33° 481	9	34 42. 76	0. 01	50. 32	2 33 52. 45	5. 46	33 31 35. 00	43. 18	5. 94	33 31 32. 1	32. 9	26. 0
20	μ Ceti	9	40 27. 16	0. 01	**50.44**	2 39 36. 85	4. 63	9 42 21. 50	28. 92	35. 16	9 41 49. 6	49. 3	17. 3
21	B. D.+32° 508	9	43 56. 96	0. 01	50. 32	2 43 6. 65	5. 51	32 26 11. 32	18. 85	7. 15	32 26 7. 2	7. 3	24. 6
22	B. D.+31° 490	9	45 19. 03	0. 01	50. 32	2 44 28. 72	5. 49	31 34 5. 28	12. 20	8. 12	31 33 60. 2	59. 7	24. 2
23	B. D.+30° 465	9	50 46. 47	+0. 01	−50. 32	2 49 56. 16	−5. 52	31 10 59. 38	66. 82	8. 55	+31 10 53. 9	53. 9	−23. 5
24	B. D.+31° 512	9	53 8. 75	+0. 01	−50. 33	2 52 18. 43	−5. 58	32 3 56. 95	62. 30	7. 56	+32 3 52. 5	50. 4	−23. 5
25	B. D.+31° 524	9	56 6. 41	0. 01	50. 33	2 55 16. 09	5. 59	31 33 59. 52	65. 65	8. 12	31 33 54. 5	53. 1	23. 0
26	B. D.+30° 484	6	59 47. 21	0. 01	50. 33	2 58 56. 89	5. 59	30 39 25. 78	30. 70	9. 14	30 39 19. 7	17. 2	22. 3
27	β Persei	9	2 36. 01	0. 01	**50.36**	3 1 45. 69	6. 08	40 34 35. 18	43. 90	1. 82	40 34 40. 0	41. 3	25. 1
28	δ Arietis	9	6 50. 13	0. 01	**50.34**	3 5 59. 81	5. 24	19 21 31. 50	38. 30	22. 37	19 21 12. 3	11. 6	17. 8
29	ζ Arietis	9	10 4. 75	0. 01	**50.36**	3 9 14. 43	5. 29	20 41 1. 55	9. 35	20. 75	20 40 44. 0	44. 2	17. 8
30	B. D.+28° 511	9	11 57. 78	+0. 01	−50. 33	3 11 7. 46	−5. 60	28 23 55. 15	59. 75	11. 70	+28 23 46. 6	43. 6	−20. 2
31	B. D.+27° 492	9	14 33. 92	+0. 01	−50. 33	3 13 43. 60	−5. 58	27 11 11. 62	18. 68	13. 08	+27 11 1. 6	1. 1	−19. 5
32	B. D.+27° 500	9	17 7. 47	0. 01	50. 33	3 16 17. 15	5. 60	27 15 23. 85	32. 02	13. 02	27 15 13. 9	14. 5	19. 2
33	B. D.+28° 526	9	19 41. 55	0. 01	50. 33	3 18 51. 23	5. 66	28 18 27. 55	33. 48	11. 80	28 18 18. 8	17. 2	19. 2
34	ξ Tauri	9	22 40. 21	0. 01	**50.28**	3 21 49. 89	5. 02	9 23 50. 30	56. 22	35. 67	9 23 17. 8	16. 1	12. 6
35	B. D.+27° 515[2]	9	26 14. 44	0. 01	50. 34	3 25 24. 11	5. 67	27 14 19. 62	25. 88	13. 03	27 14 9. 7	8. 4	18. 1
36	B. D.+26° 572	8	29 53. 06	+0. 01	−50. 34	3 29 2. 73	−5. 66	26 16 52. 42	.....	14. 14	+26 16 41. 3	....	−17. 3
37	B. D.+26° 579	9	31 2 02	+0. 01	−50. 34	3 30 11. 69	-5. 70	27 1 8. 80	15. 00	13. 28	+27 0 58. 5	57. 2	−17. 4
38	B. D.+26° 601	9	37 23. 67	0. 01	50. 34	3 36 33. 34	5. 72	26 15 39. 88	.....	14. 16	26 15 28. 7	....	16. 4
39	B. D.+24° 537	9	38 40. 69	0. 01	50. 34	3 37 50. 36	5. 66	24 46 19. 98	27. 60	15. 90	24 46 7. 1	7. 2	15. 7
40	B. D.+25° 607	9	40 29. 03	0. 01	50. 34	3 39 38. 70	5. 70	25 18 18. 38	26. 62	15. 28	25 18 6. 1	6. 9	15. 7
41	B. D.+25° 620	9	43 37. 19	0. 01	50. 34	3 42 46. 86	5. 73	25 30 2. 12	9. 28	15. 06	25 29 50. 1	49. 6	15. 3
42	B. D.+23° 570	9	45 51. 49	+0. 01	−50. 34	3 45 1. 16	−5. 67	23 40 1. 48	8. 28	17. 21	+23 39 47. 3	46. 5	−14. 5
43	B. D.+25° 637	9	48 2. 73	+0. 01	−50. 34	3 47 12. 40	−5. 75	25 14 41. 02	46. 88	15. 36	+25 14 28. 7	26. 9	−14. 7
44	B. D.+24° 598	9	52 7. 04	0. 01	50. 34	3 51 16. 71	5. 77	24 59 57. 90	65. 60	15. 65	24 59 45. 3	45. 4	14. 1
45	B. D.+24° 605	9	54 50. 56	0. 01	50. 34	3 54 0. 23	5. 76	24 25 9. 45	17. 32	16. 33	24 24 56. 1	56. 4	13. 5
46	B. D.+22° 617[2]	9	55 56. 85	0. 01	50. 34	3 55 6. 52	5. 71	22 55 35. 78	43. 38	18. 10	22 55 20. 7	20. 7	13. 0
47	B. D.+23° 611	9	59 48. 49	0. 01	50. 34	3 58 58. 16	5. 75	23 14 33. 75	40. 60	17. 73	23 14 19. 1	18. 3	12. 5
48	B. D.+21° 593	9	3 16. 18	+0. 01	−50. 34	4 2 25. 85	−5. 71	21 45 44. 52	52. 00	19. 51	+21 45 28. 1	27. 7	−11. 6

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
19 1 19	76. 84	−5. 5	−6. 7
2 1	.....	...	7. 4
2 47	77. 00	6. 7	7. 8
3 24	77. 04	7. 0	8. 1
3 57	77. 08	−7. 5	−8. 6

Bisections are made at II and V, except as noted below.

3. Bisections at c_1, c_2, c_4 and c_5.
20, 48. Bisections at II and VI.
22. Bisections at III and V.
36, 38. Bisection at II.

Note.

3-48. Seeing 3-2.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1, 2, from stars	+2. 5	−3. 6
3, from nadir	+2. 51	−4. 90
4–48, from stars	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+2.6	−3.8
2	3.0	4.4
4	1.1	4.7
5	2.3	5.1
6	2.5	5.4
7	2.7	4.8
12	[1.9]	[7.5]
20	1.1	5.7
27	[0.9]	[7.6]
28	2.5	4.0
29	+1.8	5.6
34	[−0 6]	[−6.2]

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+23° 632	9	5 13.57	+0.01	−50.34	4 4 23.24	−5.80	23 43 32.28	39.98	17.16	+23 43 18.1	18.2	−12.0
2	B. D.+23° 645	9	7 44.14	0.01	50.34	4 6 53.81	5.80	23 16 14.80	23.18	17.71	23 16 0.1	0.9	11.5
3	B. D.+23° 650	9	9 30.83	0.01	50.34	4 8 40.50	5.81	23 7 51.12	58.88	17.86	23 7 36.3	36.4	11.2
4	B. D.+22° 665	9	11 49.00	0.01	50.34	4 10 58.67	5.82	23 5 53.45	61.50	17.89	23 5 38.6	39.0	10.9
5	B. D.+20° 733	9	14 28.42	0.01	50.34	4 13 38.09	5.74	20 54 29.02	37.40	20.55	20 54 11.5	12.2	9.9
6	δ Tauri..............	9	18 5.90	0.01	**50.29**	4 17 15.57	5.62	17 19	.....	.....	17 19	....	....
7	B. D.+21° 643	9	20 23.61	+0.01	−50.34	4 19 33.28	-5.82	21 58 42.48	49.42	19.26	+21 58 26.2	25.5	− 9.4
8	B. D.+20° 756	9	22 9.57	+0.01	−50.34	4 21 19.24	−5.78	20 46 25.15	32.85	20.72	+20 46 7.4	7.5	− 8.8
9	B. D.+20° 761	9	23 44.99	0.01	50.34	4 22 54.66	5.78	20 27 45.02	53.20	21.10	20 27 26.9	27.4	8.5
10	B. D.+21° 657	9	27 8.17	0.01	50.34	4 26 17.84	5.84	21 25 28.65	36.90	19.93	21 25 11.7	12.3	8.3
11	B. D.+19° 745	9	31 47.49	0.01	50.34	4 30 57.16	5.77	19 17 49.75	55.52	22.55	19 17 30.2	28.3	7.1
12	B. D.+18° 725	9	42 0.08	0.01	50.33	4 41 9.76	5.81	18 54 21.80	25.75	23.04	18 53 61.7	58.0	5.5
13	B. D.+18° 738	9	45 23.47	0.01	50.33	4 44 33.15	5.83	19 1 34.05	42.32	22.89	19 1 14.1	14.8	5.1
14	B. D.+18° 754	7	50 16.08	+0.01	−50.33	4 49 25.76	−5.82	18 17 13.35	20.30	23.83	+18 16 52.5	51.7	− 4.2
15	B. D.+16° 672	9	52 31.82	+0.01	−50.33	4 51 41.50	-5.78	17 0 14.75	20.92	25.46	+16 59 52.3	50.7	− 3.6
16	ι Tauri..............	9	58 3.36	0.01	**50.30**	4 57 13.04	5.99	21 27 10.58	18.75	19.92	21 26 53.6	54.1	3.8
17	B. D.+18° 777	9	59 56.46	0.01	50.33	4 59 6.14	5.86	18 7 18.00	24.08	24.04	18 6 56.9	55.3	2.8
18	B. D.+16° 697	9	2 10.89	0.01	50.33	5 1 20.57	5.81	16 42 6.28	12.50	25.86	16 41 43.4	41.7	2.1
19	B. D.+15° 752	9	4 54.57	0.01	50.33	5 4 4.25	5.77	15 28 35.50	44.30	27.45	15 28 11.0	12.1	1.5
20	B. D.+16° 721	9	7 2.58	0.01	50.33	5 6 12.26	5.83	16 37 35.82	43.25	25.95	16 37 12.7	12.5	1.4
21	B. D.+16° 732	9	8 24.59	+0.01	−50.33	5 7 34.27	−5.84	16 46 17.90	24.28	25.78	+16 45 55.0	53.7	− 1.3
22	B. D.+16° 741	9	11 51.45	+0.01	−50.33	5 11 1.13	−5.86	16 54 56.10	63.25	25.59	+16 54 33.4	32.9	− 0.8
23	τ Orionis............	9	13 40.40	0.02	**50.34**	5 12 50.09	5.04	353 3 50.10	57.42	65.18	− 6 57 12.2	12.5	+ 4.8
24	B. D.+15° 795	9	16 50.99	0.01	50.32	5 16 0.68	5.83	15 45 20.92	27.95	27.10	+15 44 56.7	56.1	0.2
25	B. D.+15° 809	9	20 18.41	0.01	50.32	5 19 28.10	5.82	15 16 39.08	47.00	27.73	15 16 14.2	14.5	0.7
26	B. D.+14° 914	7	22 55.68	0.01	50.32	5 22 5.37	5.79	14 3 28.08	35.48	29.35	14 3 1.6	1.3	+ 1.4
27	χ Aurigæ	9	27 10.07	0.01	**50.31**	5 26 19.76	6.66	32 7 13.82	20.00	7.56	32 7 9.0	7.5	− 1.9
28	B. D.+13° 922	9	29 46.71	+0.01	−50.32	5 28 56.40	−5.80	13 56 31.68	38.50	29.53	+13 56 5.0	4.1	+ 2.4
29	B. D.+14° 958	9	31 42.17	+0.01	−50.32	5 30 51.86	−5.84	14 36 1.80	9.38	28.64	+14 35 36.1	35.9	+ 2.5
30	σ Orionis............	9	34 39.08	0.02	**50.32**	5 33 48.78	5.25	357 21 18.60	27.50	56.17	− 2 39 34.6	33.6	6.4
31	B. D.+13° 957	9	37 27.35	0.01	50.32	5 36 37.04	5.81	13 32 55.02	62.72	30.06	+13 32 27.9	27.9	3.5
32	B. D.+12° 880	9	39 24.39	0.01	50.32	5 38 34.08	5.78	12 40 46.32	55.08	31.25	12 40 18.0	19.0	3.9
33	B. D.+12° 899	9	42 48.04	0.01	50.32	5 41 57.73	5.78	12 13 39.62	47.70	31.87	12 13 10.7	11.0	4.5
34	B. D.+13° 988	9	44 41.57	0.01	50.31	5 43 51.27	5.85	13 53 45.82	52.85	29.60	13 53 19.1	18.4	4.4
35	B. D.+12° 937	9	49 18.28	+0.01	−50.31	5 48 27.98	−5.80	12 24 42.60	51.28	31.63	+12 24 13.9	14.8	+ 5.4
36	B. D.+11° 970	9	50 59.04	+0.01	−50.31	5 50 8.74	−5.78	11 47 56.28	64.65	32.48	+11 47 26.7	27.3	+ 5.7
37	B. D.+11° 986	9	54 41.56	0.01	50.31	5 53 51.26	5.79	11 45 40.08	48.35	32.54	11 45 10.4	11.0	6.2
38	B. D.+11° 1002	9	57 26.02	0.01	50.31	5 56 35.72	5.80	11 39 42.08	50.18	32.68	11 39 12.3	12.7	6.6
39	1 Geminorum	9	58 59.13	0.01	**50.29**	5 58 8.83	6.35	23 16 17.90	24.70	17.77	23 16 2.9	2.1	4.6
40	B. D.+11° 1038	9	3 43.94	0.01	50.31	6 2 53.64	5.80	11 25 1.82	9.52	33.02	11 24 31.6	31.6	7.5
41	η Geminorum	9	9 47.09	0.01	**50.31**	6 8 56.80	6.28	22 32 19.20	.....	18.65	22 32 3.3	....	6.5
42	μ Geminorum	9	17 51.32	0.01	**50.36**	6 17 1.03	6.31	22 34 1.75	10.22	18.62	22 33 45.9	46.6	7.8
43	8 Monocerotis	9	19 23.99	+0.02	**−50.25**	6 18 33.71	−5.60	4 39 6.78	15.42	43.21	+ 4 38 26.4	27.3	+10.6

1901 JANUARY 20. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
44	α Ursæ Minoris	9	24 1.89	+4.04	**[−51.11]**	1 23	....	88 45 55.23	64.22	71.73	+88 47 11.1	10.8	....
45	α Trianguli	9	48 18.23	0.04	**50.71**	1 47 27.52	−4.81	29 6 5.18	12.20	10.49	29 5 59.3	58.4	−28.2
46	β Arietis	9	50 2.23	0.02	**50.78**	1 49 11.49	4.63	20 19 50.12	58.68	20.38	20 19 34.4	35.0	25.1
47	γ Andromedæ........	9	58 41.49	0.08	**50.73**	1 57 50.80	5 34	41 51 23.70	32.10	3.11	41 51 31.4	31.8	31.8
48	α Arietis	9	2 27.68	+0.03	**−50.84**	2 1 36.93	−4.81	22 59 59.95	68.30	17.30	+22 59 47.3	47.6	−25.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
19 4 28	77.15	−7.6	−8.7
5 18	77.18	7.8	9.0
5 46	77.20	8.0	9.2
6 21	77 23	−8.1	−9.3
20 1 20	76.63	+1.2	+0.5
1 45	76.62	+1.0	+0.4

Bisections are made at II and V, except as noted below.

18, 30. Bisections at II and VI.
23, 47. Bisections at III and V.
41. Bisection at II.
44. Bisections at c_1, c_2, c_4 and c_5.

Notes.

1–43. Seeing 3–2.
11. Close double; observed mean; same declination.
44–48. Seeing 4.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–43. from stars	*	*
44. from nadir......	+3.21	−5.73
45–48, from stars	+3.5	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
16	+ 1.7	−6.2
23	[+ 0.5]	[6.5]
27	[− 0.1]	6.0
30	+ 2.2	6.2
39	1.6	4.9
41	0.9	...
42	2.0	6.1
43	2.1	6.2
45	2.7	4.0
46	3.6	4.6
47	3.8	4.3
48	+ 4.2	−3.8

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+36° 421	9	4 59.94	+0.06	−50.78	2 4 9.22	−5.21	36 19 28.00	35.50	2.75	+36 19 29.8	29.4	−29.6
2	B. D.+36° 435	9	7 41.21	0.07	50.78	2 6 50.50	5.26	36 54 29.18	37.42	2.13	36 54 31.6	31.9	29.5
3	B. D.+37° 512	9	10 21.41	0.07	50.79	2 9 30.69	5.33	37 55 28.72	37.92	1.05	37 55 32.2	33.5	29.6
4	B. D.+36° 453	9	12 4.32	+0.07	50.79	2 11 13.60	5.32	37 1 37.75	46.88	2.00	+37 1 40.3	41.5	29.2
5	o Ceti	9	15 12.81	−0.03	**50.85**	2 14 21.99	4.27	356 35 11.28	21.62	55.21	− 3 25 39.1	37.0	14.6
6	B. D.+34° 435	9	21 4.25	+0.06	50.80	2 20 13.51	5.33	34 24 35.90	46.05	4.78	+34 24 35.7	37.8	27.5
7	B. D.+35° 497	9	26 55.96	+0.07	−50.81	2 26 5.22	−5.44	35 42 40.92	49.02	3.40	+35 42 42.1	42.1	−27.4
8	B. D.+34° 471	9	30 42.10	+0.06	−50.81	2 29 51.35	−5.42	34 17 45.68	53.55	4.91	+34 17 45.3	45.1	−26.6
9	B. D.+33° 481	9	34 43.11	0.06	50.82	2 33 52.35	5.44	33 31 33.30	41.00	5.73	33 31 32.1	31.8	25.9
10	μ Ceti	9	40 27.72	0.00	**50.86**	2 39 36.90	4.76	9 42 18.88	26.82	33.92	9 41 49.7	49.4	17.2
11	B. D.+32° 507	9	43 57.38	0.06	50.82	2 43 6.62	5.50	32 45 59.85	67.55	6.54	32 45 57.9	57.4	24.7
12	B. D.+32° 517	.	.. ..	....	.....	2 46	....	32 20 14.70	23.15	7.00	32 20 12.3	12.6	24.3
13	B. D.+30° 465	9	50 46.86	0.06	50.83	2 49 56.09	5.51	31 10 57.55	65.62	8.25	31 10 53.9	53.8	23.5
14	B. D.+31° 512	9	53 9.17	+0.06	−50.83	2 52 18.40	−5.57	32 3 53.72	60.88	7.30	+32 3 51.0	50.0	−23.5
15	B. D.+31° 524	9	56 6.78	+0.06	−50.83	2 55 16.01	−5.57	31 33 57.20	64.15	7.83	+31 33 53.9	52.7	−23.0
16	B. D.+28° 488	9	0 14.54	0.05	50.84	2 59 23.75	5.52	29 9 38.48	46.05	10.44	29 9 32.6	32.0	21.8
17	β Persei	9	2 36.44	0.09	**50.89**	3 1 45.69	6.06	40 34 33.00	42.52	1.76	40 34 39.3	40.7	25.1
18	δ Arietis	9	6 50.62	0.03	**50.86**	3 5 59.81	5.23	19 21 29.20	37.20	21.57	19 21 12.3	12.0	17.8
19	ζ Arietis	9	10 5.18	0.03	**50.82**	3 9 14.37	5.28	20 40 58.48	67.68	20.00	20 40 43.1	44.0	17.8
20	B. D.+28° 517	8	15 33.38	0.05	50.85	3 14 42.58	5.62	28 28 25.38	31.78	11.19	28 28 18.8	16.9	19.8
21	B. D.+26° 550	9	18 28.81	+0.05	−50.85	3 17 38.01	−5.59	27 3 12.20	18.68	12.75	+27 3 4.1	2.3	−19.0
22	ξ Tauri	9	22 40.78	0.00	**−50.85**	3 21 49.93	−5.01	9 23 46.28	54.15	34.36	+ 9 23 16.6	16.1	−12.6
23	B. D +27° 515^2	9	26 14.93	+0.05	50.85	3 25 24.13	5.66	27 14 16.60	24.40	12.55	27 14 8.7	8.2	18.1
24	B. D.+26° 579	8	31 2.46	0.05	50.86	3 30 11.65	5.69	27 1 5.95	14.48	12.79	27 0 57.8	57.9	17.4
25	B. D.+24° 537	9	38 41.19	0.05	50.86	3 37 50.38	5.65	24 46 17.52	26.45	15.30	24 46 6.8	7.4	15.7
26	B. D.+24° 547	9	40 11.66	0.04	50.86	3 39 20.84	5.64	24 9 38.78	47.72	15.99	24 9 27.4	28.0	15.4
27	B. D.+25° 620	9	43 37.64	+0.05	−50.87	3 42 46.82	−5.72	25 29 59.28	68.00	14.48	+25 29 49.4	49.7	−15.3
28	B. D.+23° 570	9	45 52.01	+0.04	−50.87	3 45 1.18	−5.66	23 39 58.72	68.08	16.55	+23 39 46.8	47.8	−14.5
29	B. D.+25° 637	9	48 3.16	0.05	50.87	3 47 12.34	5.74	25 14 37.62	46.55	14.76	25 14 27.5	28.0	14.7
30	B. D.+24° 595	9	50 4.10	0.05	50.87	3 49 13.28	5.74	24 49 5.50	14.08	15.24	24 48 54.9	55.1	14.3
31	B. D.+24° 598	9	52 7.56	0.05	50.87	3 51 16.74	5.76	24 59 55.20	63.90	15.04	24 59 44.8	45.1	14.1
32	B. D.+24° 605	9	54 51.05	0.05	50.87	3 54 0.23	5.75	24 25 7.40	16.45	15.69	24 24 56.3	57.0	13.5
33	B. D.+22° 617^2	7	55 57.37	+0.04	−50.87	3 55 6.54	−5.70	22 55 31.38	41.15	17.39	+22 55 18.6	20.0	−12.9
34	B. D.+23° 611	9	59 48.94	+0.04	−50.87	3 58 58.11	−5.74	23 14 30.20	39.85	17.03	+23 14 17.8	18.9	−12.5
35	B. D.+23° 624	9	3 49.00	0.04	50.87	4 2 58.17	5.78	23 36 44.20	52.48	16.61	23 36 32.2	32.0	12.1
36	B. D.+23° 632	9	5 14.08	0.05	50.88	4 4 23.25	5.79	23 43 29.98	38.08	16.48	23 43 18.1	17.7	11.9
37	B. D.+23° 645	9	7 44.59	0.04	50.88•	4 6 53.75	5.79	23 16 12.75	22.02	17.00	23 16 0.4	1.1	11.5
38	B. D.+23° 650	9	9 31.29	0.04	50.88	4 8 40.45	5.79	23 7 48.62	57.55	17.15	23 7 36.1	36.5	11.2
39	B. D.+22° 665	9	11 49.48	+0.04	−50.88	4 10 58.64	−5.81	23 5 50.75	60.30	17.17	+23 5 38.2	39.3	−10.9
40	B. D.+20° 733	9	14 28.96	+0.04	−50.88	4 13 38.12	−5.73	20 54 27.15	36.35	19.73	+20 54 12.1	12.7	− 9.8
41	B. D.+21° 635	9	18 23.79	0.04	50.88	4 17 32.95	5.76	21 9 8.75	17.55	19.44	21 8 54.0	54.2	9.4
42	B. D.+21° 643	9	20 24.12	0.04	50.88	4 19 33.28	5.81	21 58 39.70	48.80	18.48	21 58 25.9	26.5	9.4
43	B. D.+20° 756	9	22 10.08	0.04	50.88	4 21 19.24	5.77	20 46 22.20	31.35	19.88	20 46 7.0	7.5	8.8
44	B. D.+20° 761	9	23 45.52	0.04	50.88	4 22 54.68	5.77	20 27 42.20	50.90	20.25	20 27 26.6	26.7	8.5
45	B. D.+20° 772	7	26 42.26	+0.04	−50.88	4 25 51.42	−5.79	20 34 27.42	37.12	20.12	+20 34 11.9	13.0	− 8.1
46	B. D.+19° 736	9	28 28.36	+0.04	−50.89	4 27 37.51	−5.76	19 36 32.45	40.02	21.26	+19 36 15.9	14.8	− 7.6
47	B. D.+19° 745	9	31 47.92	0.04	50.89	4 30 57.07	5.76	19 17 46.20	53.90	21.64	19 17 29.2	28.3	7.0
48	B. D.+18° 725	9	42 0.62	0.04	50.89	4 41 9.77	5.80	18 54 19.52	29.02	22.10	18 54 2.1	3.0	5.5
49	B. D.+18° 754	9	50 16.64	0.03	50.89	4 49 25.78	5.82	18 17 11.25	19.12	22.85	18 16 53.1	52.2	4.2
50	ι Tauri	9	58 3.88	0.04	**50.86**	4 57 13.02	5.98	21 27 9.35	18.15	19.09	21 26 54.9	55.0	3.8
51	B. D. +16° 697	9	2 11.38	+0.03	−50.90	5 1 20.51	−5.80	16 42 3.82	11.08	24.77	+16 41 43.7	42.3	− 2.1
52	B. D.+16° 721	9	7 3.07	+0.03	−50.90	5 6 12.20	−5.82	16 37 33.80	41.65	24.87	+16 37 13.6	12.7	− 1.4
53	B. D.+16° 741	9	11 52.01	+0.03	50.90	5 11 1.14	5.85	16 54 53.30	62.95	24.50	+16 54 33.5	34.4	− 0.8
54	τ Orionis	9	13 41.09	−0.04	**50.98**	5 12 50.15	5.03	353 3 44.70	53.52	62.42	− 6 57 12.9	12.9	+ 4.9
55	B. D.+15° 795	9	16 51.47	+0.03	50.90	5 16 0.60	5.82	15 45 17.20	27.52	25.95	+15 44 55.9	57.4	0.2
56	B. D.+15° 814	9	21 15.18	0.03	50.90	5 20 24.31	5.83	15 35 19.72	29.92	26.15	15 34 58.3	59.6	0.8
57	B. D.+14° 914	9	22 56.21	+0.02	−50.90	5 22 5.33	−5.78	14 3 25.82	34.35	28.09	+14 3 2.4	2.1	+ 1.4

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
20 2 17	.....	...	+0.2
2 57	76.58	+0.3	0.0
3 58	.....	..	−0.1
4 48	.....	...	0.3
5 5	76.48	0.3	0.2
5 18	.....	...	−0.2

Bisections are made at II and V, except as noted below.

17, 33. Bisections at III and V.

Notes.

1–57. Seeing 4.
33. Poor.
38. Poor.
47. Elongated.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–57, from stars......	+3.5	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
5	+3.7	[−6.2]
10	2.4	5.2
17	3.1	[6.2]
18	4.0	3.7
19	4.2	4.7
22	2.1	5.4
50	2.1	6.4
54	+2.9	−5.5

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	ΔT+m.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING.		REFR.	APPARENT DECL.		RED. TO 1900.0
								A.	B.		A.	B.	
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	χ Aurigæ	9	27 10.57	+0.09	**−50.89**	5 26 19.76	−6.66	32 7 11.85	19.32	7.23	+32 7 9.2	7.9	−2.0
2	B. D. +13° 922	9	29 47.28	+0.02	50.91	5 28 56.39	5.80	13 56 27.28	36.52	28.24	+13 56 3.7	4.1	+2.4
3	σ Orionis	9	34 39.72	−0.03	**50.91**	5 33 48.78	5.25	357 21 13.42	23.92	53.69	− 2 39 35.5	33.9	6.5
4	B. D. +12° 880	9	39 24.95	+0.02	50.91	5 38 34.06	5.78	12 40 43.10	53.25	29.86	+12 40 17.9	19.2	4.0
5	B. D. +13° 979	9	42 59.34	+0.02	−50.91	5 42 8.45	−5.84	13 52 6.98	15.95	28.31	+13 51 43.4	43.4	+4.2
6	B. D. +12° 912	9	44 52.53	+0.02	−50.91	5 44 1.64	−5.80	12 37 31.92	41.35	29.92	+12 37 6.7	7.2	+4.8
7	B. D. +12° 941	9	49 25.72	0.02	50.91	5 48 34.83	5.79	12 2 56.12	64.90	30.66	12 2 30.2	30.0	5.5
8	B. D. +11° 970	9	50 59.58	0.02	50.91	5 50 8.69	5.78	11 47 53.82	62.70	31.01	11 47 27.5	27.4	5.7
9	B. D. +12° 975	9	54 47.59	0.02	50.91	5 53 56.70	5.82	12 28 5.68	15.58	30.12	12 27 40.3	41.2	6.1
10	B. D. +11° 1002	9	57 26.57	+0.02	−50.92	5 56 35.67	−5.79	11 39 39.58	47.88	31.19	+11 39 13.1	12.4	+6.7
11	1 Geminorum	9	58 59.64	+0.06	**−50.91**	5 58 8.78	−6.29	23 16 14.88	23.70	16.96	+23 16 2.6	2.5	+4.8
12	B. D. +11° 1038	9	3 44.56	0.02	50.92	6 2 53.66	5.80	11 24 59.25	67.58	31.50	11 24 32.5	31.8	7.6
13	η Geminorum	9	9 47.69	0.06	**50.96**	6 8 56.83	6.28	22 32 15.42	23.85	17.79	22 32 2.3	1.8	6.5
14	μ Geminorum	9	17 51.82	+0.06	**50.91**	6 17 0.96	6.31	22 33 59.62	69.45	17.75	22 33 46.5	47.3	7.8
15	8 Monocerotis	9	19 24.71	−0.01	**−50.94**	6 18 33.78	−5.60	4 39 3.32	12.42	41.18	+ 4 38 26.9	26.9	+10.7

1901 JANUARY 22. CLAMP WEST.

UPDEGRAFF, OBSERVER. LITTELL, ASSISTANT.

16	α Ursæ Minoris	8	23 45.60	+17.33	[−**50.85**]	1 23	....	88 45 55.82	64.42	70.27	+88 47 10.0	10.2	....
17	α Trianguli	9	48 19.37	0.20	**52.04**	1 47 27.50	−4.78	29 6 4.55	11.92	10.30	29 5 59.3	58.2	−28.1
18	β Arietis	9	50 3.44	0.13	**52.13**	1 49 11.49	4.60	20 19 49.40	58.05	20.02	20 19 34.4	34.7	25.0
19	α Arietis	9	2 28.78	0.15	**52.09**	2 1 36.83	4.78	22 59 59.10	68.15	17.00	22 59 47.0	47.7	25.0
20	B. D. +36° 421	9	5 1.09	0.26	52.10	2 4 9.25	5.18	36 19 28.08	36.08	2.70	36 19 30.2	29.9	29.5
21	B. D. +36° 435	9	7 42.32	+0.27	−52.11	2 6 50.48	−5.23	36 54 29.52	38.35	2.09	+36 54 32.3	32.7	−29.4
22	B. D. +36° 453	9	12 5.46	+0.27	−52.11	2 11 13.62	−5.28	37 1 37.08	46.40	1.97	+37 1 39.8	40.8	−29.1
23	B. D. +35° 470	9	20 17.88	0.25	52.11	2 19 26.01	5.32	35 31 35.52	45.48	3.54	35 31 36.7	38.2	27.9
24	B. D. +36° 491	9	22 6.07	0.26	52.12	2 21 14.21	5.38	36 31 28.62	36.85	2.50	36 31 30.9	30.7	28.0
25	ξ² Ceti	9	23 47.09	0.05	**52.12**	2 22 55.02	4.56	8 1 32.25	40.78	35.69	8 1 1.5	1.4	18.0
26	B. D. +34° 449	9	26 3.94	0.25	52.12	2 25 12.07	5.37	34 57 48.35	58.40	4.13	34 57 49.0	50.6	27.2
27	B. D. +33° 462	9	29 28.29	+0.23	−52.13	2 28 36.39	−5.35	33 29 0.82	8.92	5.68	+33 28 59.8	59.5	−26.3
28	B. D. +34° 481	9	34 44.23	+0.23	−52.13	2 33 52.33	−5.41	33 31 32.62	41.95	5.64	+33 31 31.6	32.5	−25.8
29	μ Ceti	9	40 28.96	0.06	**52.19**	2 39 36.89	4.73	9 42 18.05	27.12	33.38	9 41 49.5	50.0	17.1
30	41 Arietis	9	45 2.99	0.18	**52.17**	2 44 11.03	5.26	26 51 25.38	33.45	12.76	26 51 17.2	16.8	22.4
31	B. D. +31° 512	9	53 10.34	0.22	52.14	2 52 18.42	5.54	32 3 54.08	61.50	7.18	32 3 51.5	50.4	23.4
32	β Persei	9	2 37.46	0.30	**52.16**	3 1 45.61	6.02	40 34 33.45	42.20	1.73	40 34 39.7	39.9	25.1
33	δ Arietis	9	6 51.79	+0.12	**−52.15**	3 5 59.76	−5.20	19 21 29.12	36.80	21.23	+19 21 12.4	11.5	−17.7
34	ζ Arietis	9	10 6.36	+0.13	**−52.18**	3 9 14.34	−5.25	20 40 59.05	67.60	19.69	+20 40 43.9	43.8	−17.7
35	B. D. +26° 548	9	18 3.56	0.17	52.15	3 17 11.58	5.54	26 33 6.68	12.62	13.10	26 32 58.1	55.3	18.8
36	ξ Tauri	9	22 41.99	0.06	**52.15**	3 21 49.90	4.98	9 23 46.30	54.20	33.84	9 23 17.1	16.2	12.5
37	B. D. +26° 566	9	25 58.37	0.17	52.15	3 25 6.39	5.61	26 46 41.32	48.78	12.86	26 46 32.9	31.7	17.9
38	B. D. +26° 579	9	31 3.63	0.17	52.15	3 30 11.65	5.66	27 1 5.85	14.50	12.60	27 0 57.7	57.6	17.4
39	B. D. +25° 597	9	38 36.54	+0.16	−52.15	3 37 44.55	−5.65	25 27 37.18	44.92	14.31	+25 27 27.3	26.3	−15.9
40	B. D. +24° 547	9	40 12.80	+0.15	−52.15	3 39 20.80	−5.61	24 9 39.38	47.38	15.75	+24 9 28.1	27.3	−15.3
41	B. D. +25° 620	9	43 38.79	0.16	52.15	3 42 46.80	5.70	25 29 59.80	68.18	14.27	25 29 49.8	49.5	15.3
42	B D. +23° 570	9	45 53.12	0.15	52.15	3 45 1.12	5.63	23 39 58.68	67.50	16.31	23 39 46.7	46.8	14.4
43	B. D. +25° 637	9	48 4.32	0.16	52.15	3 47 12.33	5.72	25 14 38.70	46.75	14.55	25 14 28.5	27.8	14.7
44	B. D. +24° 595	9	50 5.27	0.15	52.15	3 49 13.27	5.71	24 49 5.70	13.80	15.02	24 48 55.0	54.4	14.3
45	B. D. +24° 598	9	52 8.73	+0.16	−52.15	3 51 16.74	−5.73	24 59 55.32	64.45	14.82	+24 59 44.8	45.2	−14.0

Time.			Barom.	Att. Ther.	Ext. Ther.
d	h	m	cm.	°	°
20	6	22	76.38	−0.1	+0.2
22	1	19	76.24	+5.3	4.6
	2	10	76.28	4.5	3.5
	3	20	76.27	+3.5	+3.0

Bisections are made at II and V, except as noted below.

16. Bisections at c_2, c_3, c_4 and c_5.

Notes.

1–15, 16–45. Seeing 4.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–15, from stars	+3.5	*
16, from nadir	+3.18	−5.42
17–45, from stars	*	*

* Interpolated from diagram.

Eq. Pt. Cor. from stars.		
No.	A.	B.
	″	″
1	+1.6	−5.6
3	4.8	5.3
11	3.6	4.9
13	3.8	4.3
14	3.3	6.2
15	3.4	5.3
17	3.0	4.0
18	3.9	4.5
19	4.6	4.2
25	3.2	4.9
29	2.6	[6.1]
30	3.1	4.7
32	2.7	[5.8]
33	3.7	3.7
34	3.2	5.0
36	[+1.4]	[−6.1]

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D.+24° 602	9	54 10.81	+0.15	−52.15	3 53 18.81	−5.74	24 56 11.88	20.20	14.89	+24 56 1.3	0.8	−13.8
2	B. D.+22° 617^2	9	55 58.47	0.14	52.15	3 55 6.46	5.68	22 55 32.55	41.20	17.14	22 55 19.8	19.6	12.9
3	B. D.+23° 611	9	59 50.11	0.14	52.15	3 58 58.10	5.71	23 14 30.62	39.12	16.79	23 14 18.1	17.9	12.5
4	B. D.+22° 637^2	9	3 54.11	0.14	52.15	4 3 2.10	5.72	22 50 23.72	32.40	17.24	22 50 10.7	10.7	11.8
5	B. D.+23° 645	9	7 45.78	0.14	52.15	4 6 53.77	5.77	23 16 13.05	21.48	16.76	23 16 0.5	0.1	11.4
6	B. D.+23° 650	9	9 32.47	0.14	52.14	4 8 40.47	5.77	23 7 49.10	57.48	16.91	23 7 36.4	36.0	11.2
7	B. D.+22° 665	9	11 50.67	+0.14	−52.14	4 10 58.67	−5.79	23 5 51.12	59.12	16.93	+23 5 38.4	37.6	−10.8
8	B. D.+20° 733	9	14 30.08	+0.12	−52.14	4 13 38.06	−5.71	20 54 27.35	35.78	19.45	+20 54 12.1	11.8	− 9.8
9	B. D.+20° 772	9	26 43.36	0.12	52.14	4 25 51.34	5.77	20 34 27.68	36.62	19.84	20 34 12.0	12.1	8.0
10	α Tauri	9	31 8.58	0.09	**52.15**	4 30 16.53	5.63	16 19	.....	.....	16 19	....	....
11	τ Tauri	9	37 12.40	0.14	**52.09**	4 36 20.41	5.92	22 46 15.08	23.75	17.33	22 46 1.9	1.6	7.2
12	B. D.+18° 743	9	46 29.18	0.11	52.13	4 45 37.16	5.80	18 40 33.95	41.20	22.07	18 40 15.9	14.3	− 4.8
13	π^5 Orionis	9	49 59.89	+0.01	**−52.16**	4 49 7.78	−5.21	2 17 17.92	27.00	44.48	+ 2 16 37.6	37.7	0.0

1901 JANUARY 26. CLAMP WEST.

LITTELL, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
14	α Trianguli	9	48 21.12	+0.01	**−53.66**	1 47 27.46	−4.72	29 6 6.42	11.08	10.34	+29 5 58.9	57.8	−27.8
15	β Arietis	9	50 5.08	0.00	**53.70**	1 49 11.41	4.54	20 19 50.48	57.45	20.10	20 19 33.2	34.3	24.7
16	α Arietis	9	2 30.44	0.00	**53.66**	2 1 36.76	4.72	23 0 1.48	7.80	17.05	22 59 47.3	47.6	24.7
17	B. D.+38° 425	9	5 47.57	0.03	53.68	2 4 53.92	5.19	38 34 31.50	38.70	0.36	38 34 33.9	35.0	29.9
18	B. D.+36° 435	8	7 44.04	0.03	53.68	2 6 50.39	5.16	36 54 31.28	37.88	2.10	36 54 32.9	32.5	29.2
19	B. D.+36° 446	9	10 51.67	0.03	53.68	2 9 58.02	5.17	36 18 48.28	55.85	2.72	36 18 48.3	49.8	28.8
20	B. D.+34° 437	9	21 44.10	+0.02	−53.69	2 20 50.43	−5.26	35 10 18.05	26.08	3.92	+35 10 16.9	18.7	−27.5
21	ξ^2 Ceti	9	23 48.74	−0.02	**−53.75**	2 22 55.03	−4.51	8 1 34.02	41.30	35.78	+ 8 1 1.2	2.1	−17.7
22	B. D.+34° 454	9	27 2.31	+0.02	53.70	2 26 8.63	5 28	34 14 39.50	46.40	4.89	34 14 37.4	38.0	26.7
23	B. D.+33° 461	9	29 11.66	0.02	53.70	2·28 17.98	5.27	33 21 40.32	47.40	5.82	33 21 37.3	38.0	26.2
24	B. D.+33° 481	9	34 46.04	+0.02	53.70	2 33 52.36	5.34	33 31 34.40	41.18	5.65	33 31 31.5	31.9	25.7
25	μ Ceti	9	40 30.58	−0.01	**53.79**	2 39 36.86	4.68	9 42 19.80	27.15	33.45	9 41 49.3	50.1	16.8
26	41 Arietis	9	45 4.67	+0.01	**53.74**	2 44 10.97	5.20	26 51 25.75	32.58	12.79	26 51 15.8	16.0	22.2
27	B. D.+30° 464	9	50 38.46	+0.02	−53.71	2 49 44.77	−5.39	30 38 44.62	50.72	8.70	+30 38 38.7	38.2	−23.1
28	B. D.+31° 512	9	53 12.11	+0.02	−53.72	2 52 18.41	−5.47	32 3 55.85	61.65	7.20	+32 3 51.4	50.6	−23.3
29	β Persei	9	2 39.18	0.03	**53.68**	3 1 45.49	5.95	40 34 35.20	43.00	1.73	40 34 39.6	40.7	25.1
30	B. D.+28° 499	9	4 34.86	0.01	53.72	3 3 41.15	5.45	28 42 13.20	18.00	10.79	28 42 5.2	3.1	21.0
31	δ Arietis	9	6 53.46	0.00	**53.75**	3 5 59.74	5.15	19 21 31.05	37.70	21.27	19 21 12.6	12.4	17.5
32	ζ Arietis	9	10 8.03	0.00	**53.72**	3 9 14.30	5.20	20 40 59.38	67.68	19.72	20 40 42.5	43.9	17.6
33	B. D.+27° 500	9	17 10.76	+0.01	53.73	3 16 17.04	5.50	27 15 24.15	31.42	12.38	27 15 14.6	14.9	19.1
34	ξ Tauri	9	22 43.59	−0.01	**−53.73**	3 21 49.84	−4.93	9 23 48.82	54.20	33.91	+ 9 23 17.8	16.0	−12.2

1901 JANUARY 28. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
35	ξ Tauri	9	22 45.08	0.00	**−55.26**	3 21 49.83	−4.90	9 23 45.25	52.10	33.54	+ 9 23 15.2	15.4	−12.1
36	B. D.+27° 514	9	26 1.79	+0.02	55.25	3 25 6.56	5.55	27 23 49.18	55.62	12.08	27 23 40.5	40.4	18.0
37	B. D.+27° 529	9	31 2.43	0.02	55.25	3 30 7.20	5.59	27 16 3.80	10.10	12.22	27 15 55.0	54.7	17.4
38	B. D.+25° 597	9	38 39.75	+0.02	−55.25	3 37 44.52	−5.58	25 27 36.58	43.50	14.19	+25 27 25.8	26.1	−15.8
39	B. D.+24° 547	9	40 16.11	+0.02	−55.25	3 39 20.88	−5.53	24 9 40.12	46.90	15.62	+24 9 27.8	27.9	−15.2
40	η Tauri	9	42 33.13	0.02	**55.30**	3 41 37.89	5.53	23 48 11.70	19.28	16.02	23 47 59.1	60.1	14.7
41	B. D.+23° 570	9	45 56.36	0.02	55.26	3 45 1.12	5.56	23 39 59.32	66.92	16.17	23 39 46.6	47.6	14.3
42	ζ Persei	9	48 51.78	+0.03	**−55.24**	3 47 56.55	−5.92	31 35 33.42	39.95	7.63	+31 35 29.2	29.1	−16.5

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
22 4 40	76.28	+3.0	+2.6
26 1 54	75.08	−0.2	−1.2
2 36	.....	...	1.5
3 27	75.00	1.2	2.0
28 3 21	74.21	−0.8	−1.9

Bisections are made at II and V, except as noted below.

39. Bisections at IV and VI.

Notes.

1–13. Seeing 4.
10, 34. Clouds.
18. Poor; faint.
35–42. Seeing 3.
39. Observation hurried.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–13, from stars......	*	*
14–34, from stars......	+1.7	*
35–42, from stars......	+2.3	−4.0

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
11	+ 2.9	−5.4
13	2.8	5.9
14	0.9	3.5
15	2.6	4.1
16	1.9	4.1
21	1.2	5.7
25	0.6	[6.4]
26	2.5	4.0
29	1.0	[6.6]
31	1.6	4.8
32	+ 2.8	5.2
34	[−1.3]	[6.3]
35	+ 1.8	4.7
40	3.5	3.8
42	+ 1.9	−4.3

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	ε Persei	9	52 10.04	+0.05	**−55.21**	3 51 14.83	−6.39	39 43 30.12	36.90	0.83	+39 43 34.3	34.5	−18.6
2	B. D.+22° 612	9	54 58.09	0.02	55.26	3 54 2.85	5.59	22 56 26.68	34.50	16.99	22 56 13.1	14.3	12.9
3	B. D.+22° 637²	9	3 57.22	0.02	55.27	4 3 1.97	5.65	22 50 23.95	31.68	17.11	22 50 10.3	11.4	11.7
4	B. D.+21° 601	9	6 14.97	0.01	55.27	4 5 19.71	5.62	21 37 52.75	60.30	18.47	21 37 37.7	38.7	11.0
5	B. D.+22° 649	9	7 56.29	0.01	55.27	4 7 1.03	5.65	22 9 47.95	55.52	17.87	22 9 33.5	34.5	11.0
6	B. D.+21° 610	9	10 18.83	0.01	55.27	4 9 23.57	5.65	21 51 5.32	13.95	18.23	21 50 50.5	52.6	10.6
7	B. D.+21° 617	9	12 55.94	+0.01	−55.27	4 12 0.68	−5.68	22 6 53.00	60.85	17.93	+22 6 38.5	39.8	−10.3
8	B. D.+20° 733	9	14 33.24	+0.01	−55.27	4 13 37.98	−5.64	20 54 27.00	35.38	19.32	+20 54 11.1	12.9	− 9.7
9	B. D.+20° 751	9	18 39.68	0.01	55.27	4 17 44.42	5.66	20 45 21.70	30.30	19.49	20 45 5.7	7.6	9.1
10	B. D.+21° 643	9	20 28.48	0.01	55.27	4 19 33.22	5.72	21 58 40.35	46.92	18.10	21 58 25.7	25.6	9.2
11	B. D.+21° 647	9	23 5.53	0.01	55.27	4 22 10.27	5.71	21 24 12.80	20.85	18.76	21 23 57.5	58.9	8.7
12	B. D.+19° 731	9	25 26.82	0.01	55.28	4 24 31.55	5.66	19 37 45.82	53.20	20.81	19 37 28.5	29.2	7.8
13	B. D.+21° 657	9	27 12.95	0.01	55.28	4 26 17.68	5.74	21 25 26.95	35.08	18.74	21 25 11.7	13.2	8.2
14	B. D.+19° 745	9	31 52.26	+0.01	−55.28	4 30 56.99	−5.68	19 17 46.72	53.40	21.21	+19 17 29.0	29.0	− 7.9
15	τ Tauri	9	37 15.69	+0.02	**−55.33**	4 36 20.43	−5.85	22 46 15.42	22.25	17.23	+22 46 1.6	1.8	− 7.1
16	B. D.+18° 725	9	42 5.06	0.01	55.28	4 41 9.79	5.72	18 54 19.88	27.20	21.68	18 54 1.7	2.4	5.3
17	B. D.+18° 754	9	50 20.94	+0.01	55.29	4 49 25.66	5.74	18 17 10.65	17.38	22.43	18 16 51.7	51.8	4.0
18	B. D.+16° 721	9	7 7.41	0.00	55.29	5 6 12.12	5.76	16 37 33.40	40.30	24.44	+16 37 12.4	12.7	− 1.2
19	τ Orionis	9	13 45.31	−0.03	**55.28**	5 12 49.98	4.96	353 3	51.75	61.36	− 6 57	12.7	+ 5.9
20	B. D.+15° 795	7	16 55.85	0.00	−55.30	5 16 0.55	−5.77	15 45 16.95	25.25	25.52	+15 44 54.9	56.6	+ 0.4
21	B. D.+14° 914	9	23 0.54	0.00	−55.30	5 22 5.24	−5.73	14 3 25.15	32.92	27.62	+14 3 1.0	2.1	+ 1.7
22	χ Aurigæ	9	27 14.95	+0.03	**55.27**	5 26 19.68	6.60	32 7 12.38	17.85	7.11	32 7 8.6	7.6	− 2.3
23	B. D.+13° 922	9	29 51.61	0.00	55.30	5 28 56.31	5.75	13 56 27.12	34.28	27.78	+13 56 2.8	3.3	+ 2.7
24	σ Orionis	9	34 44.09	−0.02	**55.37**	5 33 48.76	5.17	357 21 12.15	21.10	52.84	− 2 39 37.1	34.9	7.4
25	B. D.+12° 880	9	39 29.29	0.00	55.31	5 38 33.98	5.74	12 40 43.60	51.42	29 40	+12 40 17.7	18.9	4.3
26	B. D.+12° 941	9	49 30.12	0.00	−55.31	5 48 34.81	−5.75	12 2 56.15	63.38	30.21	+12 2 29.4	30.0	+ 5.9
27	B. D.+12° 975	9	54 51.98	0.00	−55.32	5 53 56.66	−5.79	12 28 5.80	14.28	29.68	+12 27 39.6	41.4	+ 6.5
28	B. D.+12° 994	9	58 2.62	0.00	55.32	5 57 7.30	5.80	12 40 33.82	41.68	29.42	12 40 7.9	9.1	6.9
29	ι Geminorum	6	59 4.11	+0.02	**55.37**	5 58 8.81	6.26	23 16	.....	.....	23 16	....	...
30	ν Orionis	9	2 52.96	0.00	**55.30**	6 1 57.64	5.90	14 47 6.05	13.32	26.74	14 46 42.8	43.4	7.1
31	η Geminorum	9	9 52.01	0.02	**55.27**	6 8 56.71	6.25	22 32 16.68	22.75	17.55	22 32 2.6	2.0	6.5
32	μ Geminorum	9	17 56.22	+0.02	**−55.30**	6 17 0.92	−6.28	22 33 59.70	65.40	17.53	+22 33 45.6	44.7	+ 7.7

1901 JANUARY 29. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
33	ξ² Ceti	9	23 50.97	−0.01	**−56.08**	2 22 54.94	−4.47	8 1 32.40	39.75	35.65	+ 8 1 1.1	0.9	−17.6
34	B. D.+34° 449	9	26 7.84	+0.11	56.02	2 25 11.93	5.24	34 57 48.75	56.42	4.12	34 57 48.8	49.0	26.8
35	B. D.+33° 454	9	27 51.36	0.10	56.02	2 26 55.44	5.23	34 6 32.35	39.75	5.03	34 6 31.5	31.4	26.4
36	B. D.+32° 484	9	34 50.76	0.10	56.02	2 33 54.84	5.25	32 23 31.15	37.28	6.82	32 23 28.4	27.1	25.2
37	B. D.+33° 493	9	37 32.29	+0.10	−56.02	2 36 36.37	−5.31	33 20 53.00	60.48	5.82	+33 20 51.2	51.3	−25.2
38	μ Ceti	9	40 32.79	0.00	**−56.06**	2 39 36.77	−4.63	9 42 18.42	25.78	33.34	+ 9 41 49.3	49 1	−16.7
39	41 Arietis	9	45 6.89	+0.07	**56.07**	2 44 10.94	5.15	26 51 24.85	32.02	12.75	26 51 16.2	15.8	22.2
40	B. D.+31° 497	9	48 23.17	0.09	56.02	2 47 27.24	5.34	31 14 36.25	44.08	8.04	31 14 32.2	32.5	23.4
41	B. D.+31° 509	9	52 14.33	0.09	56.02	2 51 18.40	5.39	31 32 22.15	28.95	7.73	31 32 18.4	17.7	23.2
42	δ Arietis	9	6 55.63	+0.04	**−56.01**	3 5 59.65	−5.10	19 21 28.75	36.68	21.22	+19 21 11.5	11.8	−17.3
43	ζ Arietis	9	10 10.25	+0.04	**−56.08**	3 9 14.27	−5.15	20 40 58.60	66.65	19.68	+20 40 42.9	43.3	−17.4
44	ξ Tauri	9	22 45.82	0.00	**56.01**	3 21 49.80	4.89	9 23 46.35	53.50	33.85	9 23 16.4	15.9	12.0
45	B. D.+27° 513	9	25 59.79	0.07	56.02	3 25 3.84	5.53	27 23 21.62	29.18	12.20	27 23 13.1	13.1	18.0
46	B. D.+26° 574	9	30 20.73	0.07	56.02	3 29 24.78	5.65	26 31 25.00	31.95	13.14	26 31 15.6	14.9	17.2
47	B. D.+25° 584	9	34 30.62	+0.06	−56.03	3 33 34.65	−5.54	25 48 31.62	37.90	13.93	+25 48 21.4	20.0	−16.4

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
28 4 2	.....	...	−2.2
4 16	74.28	−1.6	...
4 29	.....	...	2.6
5 1	74.34	2.2	3.0
5 52	74.40	2.6	3.1
6 21	74.46	−2.7	3.1
29 2 30	75.20	+1.0	0.1
3 20	75.25	+0.3	−0.6

Bisections are made at II and V, except as noted below.

19. Bisection at V.

Notes.

1-32, 33-47. Seeing 3.
32. Clouds.
33. Unsteady.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1-32, from stars......	+2.3	−4.0
33-47, from stars......	*	*

*Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+2.3	−4.2
15	2.4	4.1
19	...	[5.8]
22	1.3	4.0
24	[4.3]	4.2
30	2.1	4.8
31	2.3	3.4
32	3.1	2.3
33	2.6	4.4
38	1.8	5.2
39	3.4	3.5
42	3.6	4.0
43	3.3	4.4
44	[+0.9]	[−5.9]

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SECδ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	B. D. +24° 534	9	36 44.39	+0.06	−56.03	3 35 48.42	−5.53	25 3 22.45	29.32	14.76	+25 3 11.3	10.6	−15.9
2	B. D. +25° 597	9	38 40.44	0.06	56.03	3 37 44.47	5.56	25 27 36.38	44.48	14.32	25 27 25.7	26.2	15.8
3	B. D. +24° 547	9	40 16.71	0.06	56.03	3 39 20.74	5.52	24 9 40.80	47.62	15.77	24 9 28.6	27.9	15.2
4	B. D. +24° 571	9	43 9.56	0.06	56.03	3 42 13.59	5.56	24 41 13.15	22.58	15.18	24 41 1.6	3.3	15.0
5	B. D. +25° 627	9	46 18.89	0.07	56.03	3 45 22.93	5.64	26 3 32.88	38.62	13.66	26 3 22.8	20.9	15.0
6	B. D. +25° 637	9	48 8.25	0.06	56.03	3 47 12.28	5.62	25 14 37.35	45.42	14.57	25 14 26.3	26.8	14.6
7	B. D. +24° 599	9	52 29.17	+0.06	−56.03	3 51 33.20	−5.61	24 10 44.80	53.35	15.75	+24 10 32.6	33.4	−13.6
8	B. D. +22° 615	9	55 36.50	+0.05	−56.03	3 54 40.52	−5.57	22 32 55.90	63.08	17.59	+22 32 41.8	41.3	−12.7
9	B. D. +23° 609	9	59 24.39	0.06	56.03	3 58 28.42	5.64	23 50 15.42	23.68	16.14	23 50 2.8	3.4	12.6
10	B. D. +22° 657	9	9 35.25	0.05	56.03	4 8 39.27	5.65	22 12 21.55	28.60	18.00	22 12 7.0	6.3	10.8
11	B. D. +21° 618	9	13 29.67	0.04	56.03	4 12 33.68	5.64	21 20 30.60	38.78	18.99	21 20 15.0	15.4	10.0
12	γ Tauri............	9	15 7.55	0.02	**56.05**	4 14 11.54	5.43	15 23 41.55	48.92	26.09	15 23 18.8	18.5	7.7
13	B. D. +21° 642	9	20 26.18	0.05	56.03	4 19 30.20	5.71	22 4 17.95	26.15	18.15	22 4 3.1	3.6	9.3
14	B. D. +20° 761	9	23 50.57	+0.04	−56.04	4 22 54.57	−5.67	20 27 43.98	51.00	20.02	+20 27 27.2	26.5	− 8.3
15	B. D. +19° 735	9	28 11.98	+0.04	−56.04	4 27 15.98	−5.64	19 8 36.22	43.48	21.57	+19 8 17.9	17.4	− 7.3
16	B. D. +19° 742	9	30 52.48	0.04	56.04	4 29 56.48	5.68	19 40 55.22	62.78	20.94	19 40 37.5	37.4	7.1
17	B. D. +20° 785	9	33 23.51	0.04	56.04	4 32 27.51	5.73	20 29 24.90	33.25	19.99	20 29 8.2	8.7	7.0
18	τ Tauri............	9	37 16.35	0.05	**56.03**	4 36 20.36	5.84	22 46 16.15	23.50	17.38	22 46 1.9	1.5	7.1
19	B. D. +18° 717	9	41 16.82	0.03	56.04	4 40 20.81	5.70	18 37 28.60	34.38	22.20	18 37 9.6	7.6	5.4
20	B. D. +17° 791	9	45 33.83	+0.03	56.04	4 44 37.82	5.67	17 21 17.85	25.58	23.71	17 20 57.3	57.3	− 4.4
21	π⁵ Orionis..........	9	50 3.74	−0.03	−**56.04**	4 49 7.66	−5.14	2 17 18.68	27.38	44.61	+ 2 16 37.3	38.2	+ 0.6
22	ι Tauri............	9	58 8.98	+0.04	−**56.04**	4 57 12.97	−5.90	21 27 9.60	16.78	18.89	+21 26 53.9	53.3	− 3.7
23	B. D. +15° 752	9	5 0.23	0.02	56.05	5 4 4.20	5.69	15 28 35.92	42.90	26.03	15 28 13.1	11.3	1.2
24	B. D. +15° 759	9	6 58.68	+0.02	56.05	5 6 2.65	5.72	15 55 43.88	51.52	25.47	+15 55 21.6	21.5	− 1.0
25	τ Orionis..........	9	13 46.14	−0.01	**56.14**	5 12 50.07	4.95	353 3 43.08	51.28	61.79	− 6 57 15.4	15.0	+ 6.0
26	B. D. +15° 795	9	16 56.66	+0.02	56.06	5 16 0.62	5.76	15 45 18.02	26.80	25.69	+15 44 55.5	56.6	0.4
27	B. D. +14° 914	9	23 1.34	+0.02	−56.06	5 22 5.30	−5.72	14 3 25.02	32.78	27.82	+14 3 0.4	0.4	+ 1.8
28	χ Aurigæ..........	9	27 15.66	+0.09	−**56.05**	5 26 19.69	−6.59	32 7 12.80	19.65	7.16	+32 7 8.7	7.9	− 2.4
29	B. D. +15° 856	9	29 18.04	+0.02	56.07	5 28 21.99	5.80	15 31 15.35	23.10	25.98	+15 30 52.6	52.6	+ 2.2
30	σ Orionis..........	9	34 44.86	−0.05	**56.11**	5 33 48.74	5.17	357 21 14.00	23.58	53.20	− 2 39 35.9	34.2	7.5
31	B. D. +14° 998	9	38 52.00	+0.02	56.07	5 37 55.95	5.79	14 22 11.40	19.25	27.42	+14 21 47.2	47.3	3.9
32	B. D. +13° 988	9	44 47.29	0.02	56.08	5 43 51.23	5.80	13 53 41.85	50.10	28.02	13 53 17.0	17.5	4.8
33	B. D. +12° 941	9	49 30.91	+0.01	−56.08	5 48 34.84	−5.74	12 2 56.15	64.45	30.40	+12 2 29.0	29.5	+ 5.9
34	B. D. +12° 975	9	54 52.74	+0.01	−56.09	5 53 56.66	−5.78	12 28 6.10	15.08	29.87	+12 27 39.4	40.7	+ 6.6
35	B. D. +11° 1007	9	58 45.90	0.00	56.09	5 57 49.81	5.74	11 8 36.32	44.00	31.62	11 8 7.9	7.8	7.4
36	ν Orionis..........	9	2 53.75	0.02	**56.11**	6 1 57.68	5.90	14 47 6.15	14.30	26.90	14 46 42.4	42.8	7.2
37	η Geminorum.......	9	9 52.79	0.05	**56.09**	6 8 56.74	6.24	22 32 16.72	23.92	17.66	22 32 2.2	1.7	6.5
38	μ Geminorum.......	9	17 56.97	+0.05	**56.09**	6 17 0.92	6.27	22 34 1.42	8.78	17.64	22 33 46.9	46.6	7.7
39	8 Monocerotis......	9	19 29.87	−0.02	−**56.12**	6 18 33.74	−5.57	4 39 3.38	11.72	40.93	+ 4 38 25.7	26.2	+11.5

1901 FEBRUARY 23. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SECδ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
40	58 Ursæ Majoris.....	9	25 26.01	−0.02	[−**13.27**]	11 25 12.61	....	43 42 33.98	39.78	5.14	+43 42 42.0	40.8	....
41	υ Leonis...........	9	32 8.84	0.04	**13.39**	11 31 55.42	−5.69	359 43 52.88	59.50	50.03	− 0 16 53.8	54.7	+36.9
42	β Virginis..........	9	45 48.34	0.04	**13.42**	11 45 34.91	5.70	2 19 45.70	54.95	45.58	+ 2 19 3.5	5.2	37.5
43	Groombridge 1830.	9	47 32.56	0.02	[**13.31**]	11 47 19.14	....	38 25 20.92	28.18	0.53	38 25 23.3	23.6	....
44	b Virginis..........	9	55 8.67	0.04	**13.39**	11 54 55.23	5.61	4 12 44.95	52.58	42.55	4 12 5.7	5.9	37.3
45	2 Canum Venat.....	9	11 25.92	0.02	[**13.24**]	12 11 12.48	....	41 12 14.60	20.58	2.45	+41 12 20.0	18.9	....
46	η Virginis....	9	15 6.41	−0.04	−**13.40**	12 14 52.95	−5.58	359 53 31.52	38.00	49.81	− 0 7 14.9	16.0	+36.3

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
29 3 54	.....	...	−1.0
4 36	75.28	−1.0	1.6
5 31	75.30	1.5	1.6
6 1	.....	...	1.5
6 33	75.34	1.8	1.9
23 11 58	75.03	−7.8	−8.5

Bisections are made at II and V, except as noted below.

3. Bisections at III and V.

Notes.

1–39.	Seeing 3.
20.	Very faint; poor; clouds.
40, 43, 45.	Observed head north.
40–46.	Seeing 2–3.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1–39, from stars......	*	*
40, 43, 45, from nadir.....	+1.91	−4.88
41, 42, 44, 46, from stars......	+2.1	−5.0

* Interpolated from diagram.

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
12	+1.6	−5.5
18	1.8	5.2
21	1.6	[6.7]
22	1.5	5.3
25	2.8	5.0
28	1.0	5.6
30	2.7	[6.4]
36	2.1	5.7
37	2.4	4.5
38	1.5	5.6
39	2.3	5.6
41	1.3	4.9
42	3.1	5.7
44	3.2	4.1
46	+0.9	−5.1

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	W. B.$_1$ XII. 279	9	20 29.89	−0.04	−13.42	12 20 16.43	−5.56	359 29 14.58	22.68	50.54	− 0 31 32.6	32.0	+36.0
2	W. B.$_1$ XII. 363	9	24 34.42	0.04	13.43	12 24 20.95	5.55	359 19 23.50	31.18	50.85	− 0 41 24.0	23.8	35.8
3	B. D. +0° 2952	9	28 11.17	0.04	13.43	12 27 57.70	5.54	0 16 47.40	54.48	49.16	+ 0 16 1.6	1.2	35.9
4	Lal. 23581	9	32 16.80	0.04	13.43	12 32 3.33	5.54	358 14 10.60	20.02	52.87	− 1 46 38.9	37.0	35.3
5	9 Canum Venat	9	34 16.38	0.02	**[13.34]**	12 34 2.92	....	41 24 42.35	50.05	2.68	+41 24 48.0	48.6	....
6	Piazzi XII. 170	9	39 22.28	−0.04	**−13.44**	12 39 8.80	−5.52	357 42 35.22	42.88	53.91	− 2 18 15.3	15.2	+35.0
7	35 Virginis	9	43 4.84	−0.04	**−13.44**	12 42 51.36	−5.45	4 7 11.20	18.50	42.83	+ 4 6 31.7	31.5	+36.1
8	α Canum Venat	9	51 39.58	0.02	**[13.37]**	12 51 26.11	....	38 50 44.98	52.35	0.08	38 50 47.9	48.2	....
9	43 H. Cephei S. P	7	55 16.70	0.00	**[13.36]**	0 55	....	94 14 33.92	41.62	89.00	85 43 54.1	53.1	....
10	14 Canum Venat	9	1 22.38	0.02	**[13.31]**	13 1 8.90	....	36 19 20.68	28.20	2.80	+36 19 20.9	21.3	....
11	θ Virginis	9	5 5.33	−0.04	**−13.51**	13 4 51.83	....	355 0 2.08	11.55	59.44	− 5 0 54.2	51.9	....
12	20 Canum Venat	9	13 21.89	−0.02	**[−13.38]**	13 13 8.40	....	41 5 10.35	19.62	2.34	+41 5 15.7	17.9	....
13	α Ursæ Minoris S. P.	8	22 57.30	+0.24	**[14.14]**	1 22	....	91 11 29.17	37.33	79.86	88 47 7.8	6.4	....
14	25 Canum Venat	9	33 19.26	−0.02	**[13.43]**	13 33 5.75	....	36 47 32.15	38.12	2.30	+36 47 32.8	31.7	....
15	*m* Virginis	9	36 40.73	0.04	**13.50**	13 36 27.20	....	351 48 37.40	46.52	66.65	− 8 12 26.0	24.1	....
16	83 Virginis	9	39 25.13	−0.05	**−13.47**	13 39 11.59	....	344 20 20.30	28.45	87.02	−15 41 3.4	2.6	....

1901 FEBRUARY 24. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
17	β Andromedæ	7	4 25.61	+0.03	**−13.85**	1 4	....	35 5 55.48	62.88	3.99	+35 5 54.3	54.2	....
18	α Ursæ Minoris	6	22 52.83	+3.68	**13.41**	1 22	....	88 45 49.94	59.40	70.84	88 47 3.6	5.2	....
19	β Arietis	6	49 24.97	0.00	**−14.01**	1 49	....	20 19 48.95	56.10	20.18	+20 19 31.6	31.2	....

1901 FEBRUARY 25. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T + m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
20	58 Ursæ Majoris	9	25 27.68	+0.22	**[−15.15]**	11 25 12.62	....	43 42 32.22	40.00	4.99	+43 42 40.5	40.0	....
21	υ Leonis	9	32 10.73	−0.05	**15.24**	11 31 55.40	−5.72	359 43 49.82	57.62	48.56	− 0 16 55.1	55.5	+37.1
22	β Virginis	9	45 50.26	−0.04	**15.31**	11 45 34.94	5.73	2 19 44.38	53.48	44.25	+ 2 19 3.9	4.7	37.7
23	Grombridge 1830	9	47 34.29	+0.18	**[15.20]**	11 47 19.19	....	38 25 20.15	29.60	0.52	38 25 23.1	24.1	....
24	*b* Virginis	9	55 10.59	−0.03	**15.28**	11 54 55.28	−5.65	4 12 43.62	51.68	41.30	4 12 6.2	5.8	+37.5
25	2 Canum Venat	9	11 27.62	+0.20	**[−15.12]**	12 11 12.53	....	41 12 14.00	22.55	2.38	+41 12 20.0	20.0	....
26	η Virginis	9	15 8.36	−0.05	**−15.30**	12 14 53.03	−5.62	359 53 29.05	37.08	48.36	− 0 7 15.2	15.8	+36.5
27	Lal. 23271	9	21 59.83	0.05	15.28	12 21 44.50	5.59	0 22 20.65	29.62	47.53	+ 0 21 37.3	37.6	36.3
28	Lal. 23342	9	24 22.92	0.06	15.28	12 24 7.58	5.61	358 7 36.52	46.35	51.47	− 1 53 10.8	9.7	35.9
29	Mayer 531	9	29 36.70	0.05	15.28	12 29 21.37	5.58	359 8 46.78	55.92	49.67	0 51 58.6	58.3	35.8
30	Lal. 23581	9	32 18.79	−0.06	15.28	12 32 3.45	−5.58	358 14 7.48	18.12	51.29	− 1 46 39.5	37.7	+35.6
31	9 Canum Venat	9	34 18.02	+0.20	**[−15.16]**	12 34 2.92	....	41 24 41.90	50.60	2.60	+41 24 48.2	48.2	....
32	Piazzi XII. 170	9	39 24.16	−0.06	**−15.25**	12 39 8.82	−5.57	357 42 32.18	40.90	52.25	− 2 18 15.7	15.9	+35.2
33	35 Virginis	9	43 6.74	0.03	**15.31**	12 42 51.43	5.49	4 7 8.25	17.50	41.50	+ 4 6 31.1	31.4	36.3
34	37 Virginis	9	46 52.28	−0.03	**15.29**	12 46 36.97	−5.48	3 36 3.98	13.02	42.31	3 35 26.0	26.2	+36.0
35	α Canum Venat	9	51 41.30	+0.18	**[15.25]**	12 51 26.18	....	38 50 45.00	54.32	0.08	38 50 48.8	49.3	....
36	14 Canum Venat	9	1 24.18	+0.16	**[−15.24]**	13 1 9.04	....	36 19 20.55	29.18	2.71	+36 19 21.7	21.5	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
23 12 26	.....	...	−8.7
12 37	75.04	−8.2	9.0
13 18	75.04	−8.5	10.2
24 1 12	75.17	0.0	1.1
1 28	75.18	+0.2	1.4
25 11 50	75.18	−0.3	0.3
12 13	75.16	0.5	0.6
12 36	75.14	−0.4	−0.8

Bisections are made at II and V, except as noted below.

5, 8, 10, 12, 14, 20, 23, 25, 31, 35, 36.	Bisections at III and V.
9.	Bisections at c$_1$ and c$_5$.
13.	Bisections at c$_1$, c$_2$, c$_4$ and c$_5$.
17, 19.	Bisection at IV.
18.	Bisections at c$_2$, c$_3$, c$_4$ and c$_5$.

Notes.

1–16.	Seeing 2–3.
5, 8, 10, 12, 14.	Observed head north.
18.	Floating clouds; rather unsteady.
20–36.	Seeing 2.
20, 23, 25, 31, 35, 36.	Observed head south.
22.	Unsteady.
27.	Faint.

Adopted Equator Point Corrections.

		A.	B.
		″	″
1–4, 6, 7, from stars		+2.1	−5.0
5, 8–16, from nadir		+1.91	−4.88
17–19, from nadir		+1.84	−5.70
20, 23, 25, 31, 35, 36, from nadir	11^h 40^m	+2.35	−5.75
	13 46	+3.06	
21, 22, 24, 26–30, 32–34, from stars	11 52	+2.58	−5.4
	12 43	+3.10	

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
6	+2.1	−5.1
7	2.0	4.9
21	2.7	4.7
22	2.9	5.8
24	3.0	4.6
26	1.7	5.9
32	3.3	5.0
33	3.4	5.4
34	+2.6	−6.1

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	θ Virginis	9	5 7.24	− 0.07	**−15.35**	13 4 51.86	....	354 59 59.92	72.12	57.48	− 5 0 53.4	50.2	....
2	20 Canum Venat.	7	13 23.56	+ 0.20	**[15.22]**	13 13 8.45	....	41 5 10.90	18.88	2.26	+41 5 17.1	16.2	....
3	α Ursæ Minoris S. P.	9	23 9.94	−12.05	**[15.68]**	1 22	....	91 11 32.32	42.18	77.14	88 47 6.3	5.2	....
4	25 Canum Venat.	9	33 20.94	+ 0.16	**[−15.28]**	13 33 5.79	....	36 47 31.78	40.25	2.22	+36 47 33.6	33.1	....

1901 FEBRUARY 26. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
5	58 Ursæ Majoris	9	25 28.47	+ 0.17	**[−15.87]**	11 25 12.68	....	43 42 32.18	39.60	5.04	+43 42 40.6	40.4	....
6	υ Leonis	9	32 11.46	− 0.04	**15.97**	11 31 55.46	−5.73	359 43 51.65	58.42	49.07	− 0 16 53.4	54.7	+37.2
7	β Virginis	9	45 50.94	0.03	**15.98**	11 45 34.93	5.75	2 19 45.15	53.60	44.71	+ 2 19 4.5	4.9	37.7
8	*b* Virginis	9	55 11.28	− 0.02	**15.97**	11 54 55.28	5.66	4 12 42.82	51.22	41.74	4 12 5.1	5.4	37.6
9	2 Canum Venat.	9	11 28.40	+ 0.15	**[15.83]**	12 11 12.56	....	41 12 14.85	21.62	2.41	+41 12 21.0	19.8	....
10	η Virginis	9	15 9.06	− 0.04	**−16.00**	12 14 53.03	−5.63	359 53 28.45	36.28	48.87	− 0 7 16.4	16.6	+36.6
11	W. B.$_1$ XII. 279	9	20 32.48	− 0.04	−15.99	12 20 16.45	−5.63	359 29 12.40	21.32	49.58	− 0 31 33.1	32.3	+36.4
12	W. B.$_1$ XII. 363	9	24 36.99	0.04	15.99	12 24 20.96	5.62	359 19 21.85	30.35	49.89	− 0 41 24.0	23.6	36.2
13	B. D.+0° 2952	9	28 13.73	0.04	15.99	12 27 57.70	5.60	0 16 45.72	54.00	48.23	+ 0 16 1.6	1.7	36.2
14	Lal. 23581	9	32 19.46	− 0.05	16.00	12 32 3.41	5.61	358 14 8.85	18.75	51.84	− 1 46 38.9	37.1	35.7
15	9 Canum Venat.	9	34 18.81	+ 0.15	**[15.87]**	12 34 2.96	....	41 24 42.12	50.58	2.63	+41 24 48.6	49.0	....
16	Piazzi XII. 170	9	39 24.92	− 0.05	**−16.00**	12 39 8.87	−5.59	357 42 33.15	41.50	52.85	− 2 18 15.6	15.4	+35.4
17	35 Virginis	9	43 7.46	− 0.02	**−16.02**	12 42 51.44	−5.51	4 7 9.08	17.58	41.97	+ 4 6 31.2	31.6	+36.3
18	37 Virginis	9	46 52.99	− 0.03	**15.98**	12 46 36.96	−5.50	3 36 3.82	12.60	42.80	3 35 25.1	25.7	+36.1
19	α Canum Venat.	9	51 42.09	+ 0.13	**[15.97]**	12 51 26.22	....	38 50 45.30	53.42	0.08	38 50 49.2	49.2	....
20	43 H. Cephei S. P.	9	55 21.21	− 2.48	**[15.82]**	0 55	....	94 14 35.85	43.62	87.20	85 43 53.0	52.6	....
21	14 Canum Venat.	9	1 24.89	+ 0.12	**[−15.88]**	13 1 9.01	....	36 19 21.45	28.80	2.74	+36 19 22.7	21.9	....
22	20 Canum Venat.	9	13 24.33	+ 0.15	**[−15.91]**	13 13 8.49	....	41 5 10.88	18.85	2.29	+41 5 17.2	17.0	....
23	α Ursæ Minoris S. P.	9	23 6.82	− 8.48	**[16.74]**	1 22	....	91 11 31.04	39.65	78.16	88 47 6.4	5.9	....
24	25 Canum Venat.	9	33 21.67	+ 0.12	**[15.90]**	13 33 5.81	....	36 47 32.40	39.50	2.25	+36 47 34.4	33.1	....
25	*m* Virginis	9	36 43.32	− 0.08	**15.98**	13 36 27.27	....	351 48 36.30	45.45	65.19	− 8 12 24.4	23.8	....
26	83 Virginis	9	39 27.77	− 0.11	**−15.96**	13 39 11.69	....	344 20 18.78	27.52	85.08	−15 41 1.8	1.6	....

1901 FEBRUARY 28. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
27	58 Ursæ Majoris	9	25 29.59	+ 0.16	**[−16.94]**	11 25 12.69	....	43 42 33.75	43.60	5.13	+43 42 41.7	43.2	....
28	υ Leonis	9	32 12.57	− 0.05	**17.05**	11 31 55.45	−5.75	359 43 51.20	60.60	49.90	− 0 16 54.7	54.5	+37.4
29	β Virginis	9	45 52.08	− 0.04	**17.09**	11 45 34.97	5.77	2 19 46.05	54.20	45.47	+ 2 19 4.5	3.5	37.9
30	Groombridge 1830.	8	47 36.24	+ 0.12	**[17.04]**	11 47 19.29	....	38 25 21.22	30.48	0.53	38 25 23.4	24.4	....
31	*b* Virginis	9	55 12.43	− 0.03	**17.07**	11 54 55.32	−5.70	4 12 44.28	53.30	42.42	4 12 5.8	5.6	+37.8
32	2 Canum Venat.	9	11 29.58	+ 0.14	**[−16.96]**	12 11 12.63	....	41 12 14.48	22.52	2.45	+41 12 19.7	19.4	....
33	η Virginis	9	15 10.20	− 0.05	**−17.10**	12 14 53.06	−5.66	359 53 29.68	38.60	49.66	− 0 7 16.0	16.3	+36.8
34	W. B.$_1$ XII. 279	9	20 33.63	0.05	17.09	12 20 16.49	5.67	359 29 12.82	21.82	50.37	0 31 33.6	33.8	36.6
35	W. B.$_1$ XII. 363	9	24 38.15	0.05	17.10	12 24 21.00	5.66	359 19 23.55	32.02	50.67	− 0 41 23.1	23.9	36.4
36	B. D.+0° 2952	9	28 14.90	0.05	17.10	12 27 57.75	5.64	0 16 46.95	55.60	48.98	+ 0 16 1.9	1.4	36.5
37	Lal. 23581	8	32 20.62	− 0.06	17.10	12 32 3.46	−5.65	358 14 9.82	20.35	52.64	− 1 46 38.8	37.5	+36.0
38	9 Canum Venat.	9	34 19.99	+ 0.14	**[−16.99]**	12 34 3.02	....	41 24 42.80	51.42	2.67	+41 24 48.3	48.5	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
25 13 27	75.11	−0.5	−1.2
26 11 28	75.40	1.4	2.0
12 13	75.44	1.7	2.3
12 37	75.44	2.0	2.6
13 9	.....	....	3.2
13 32	75.50	2.5	3.4
28 11 51	76.23	2.7	3.7
12 14	76.23	−2.6	−3.8

Bisections are made at II and V, except as noted below.

2.	Bisections at V and VI.
3, 23.	Bisections at c_1, c_3, c_4 and c_5.
4, 9, 15, 19, 21, 22, 24, 27, 32, 38.	Bisections at III and V.
20.	Bisections at b_1 and c_5.
30.	Bisections at IV and V.

Notes.

2, 4, 27, 30, 32, 38.	Observed head south.
3.	Star unsteady.
5, 9, 15, 19, 21, 22, 24.	Observed head north.
5–26, 27–38.	Seeing 4.
30.	Hurried.

Adopted Equator Point Corrections.

		A.	B.
		″	″
1–4, from nadir	11h 40m	+2.35	−5.75
	13 46	+3.06	
5, 9, 15, 19–26, from nadir	11 39	+2.47	−4.97
	13 50	+3.22	
6–8, 10–14, 16–18, from stars		+2.8	−4.9
27, 30, 32, 38, from nadir		+1.72	−6.34
28, 29, 31, 33–37, from stars		+2.7	−6.1

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
6	+1.3	−5.1
7	2.6	5.5
8	4.2	3.8
10	2.8	4.7
16	2.7	5.2
17	3.0	5.1
18	3.1	5.2
28	2.3	6.7
29	2.3	5.5
31	3.2	5.4
33	+2.1	−6.4

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\varDelta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	Piazzi XII. 170	9	39 26.03	+ 0.06	**−17.05**	12 39 8.86	−5.64	357 42 33.38	42.92	53.63	− 2 18 16.3	15.9	+35.6
2	35 Virginis	9	43 8.67	0.03	**17.19**	12 42 51.53	5.54	4 7 9.80	19.18	42.58	+ 4 6 31.2	31.2	36.5
3	37 Virginis	9	46 54.15	− 0.04	**17.08**	12 46 37.00	−5.55	3 36 4.45	14.00	43.40	3 35 25.0	25.3	+36.3
4	α Canum Venat	9	51 43.25	+ 0.12	**[17.07]**	12 51 26.25	....	38 50 46.05	52.78	0.08	38 50 48.8	47.2	....
5	43 H. Cephei S. P	9	55 22.00	− 2.42	**[17.08]**	0 55	....	94 14 35.85	44.62	88.35	85 43 53.0	52.2	....
6	14 Canum Venat	9	1 26.03	+ 0.11	**[−16.96]**	13 1 9.01	....	36 19 21.42	29.35	2.78	+36 19 21.4	21.0	....
7	θ Virginis	9	5 9.13	− 0.07	**−17.18**	13 4 51.93	....	355 0 1.28	11.95	58.93	− 5 0 54.6	52.4	....
8	α Ursæ Minoris S. P	9	23 6.10	− 8.52	**[17.30]**	1 22	....	91 11 31.83	41.26	78.98	+88 47 6.2	4.9	....
9	25 Canum Venat	9	33 22.85	+ 0.11	**[17.02]**	13 33 5.81	....	36 47 32.50	40.50	2.28	+36 47 33.0	32.7	....
10	*m* Virginis	9	36 44.51	− 0.08	**17.12**	13 36 27.28	....	351 48 37.40	46.58	65.80	− 8 12 25.4	24.7	....
11	83 Virginis	9	39 29.03	− 0.12	**−17.15**	13 39 11.76	....	344 20 18.65	28.20	85.84	−15 41 4.1	3.1	....

1901 MARCH 2. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

12	58 Ursæ Majoris	9	25 30.72	+ 0.56	**[−18.44]**	11 25 12.77	....	43 42 33.88	41.90	4.92	+43 42 42.1	41.0	....
13	υ Leonis	9	32 14.07	− 0.04	**18.54**	11 31 55.51	−5.77	359 43 49.78	58.22	47.86	− 0 16 54.5	55.3	+37.6
14	β Virginis	9	45 53.51	− 0.02	**18.52**	11 45 34.98	5.79	2 19 44.00	52.70	43.64	+ 2 19 3.9	3.5	38.0
15	Groombridge 1830	9	47 37.41	+ 0.44	**[18.50]**	11 47 19.33	....	38 25 21.68	30.10	0.51	38 25 24.5	23.9	....
16	*b* Virginis	9	55 13.84	0.00	**18.48**	11 54 55.33	−5.73	4 12 42.65	52.50	40.74	4 12 5.5	6.3	+38.0
17	2 Canum Venat	9	11 30.70	+ 0.48	**[−18.39]**	12 11 12.66	....	41 12 15.92	23.25	2.35	+41 12 21.6	20.0	....
18	η Virginis	9	15 11.64	− 0.04	**−18.52**	12 14 53.09	−5.69	359 53 27.72	36.48	47.73	− 0 7 16.4	16.5	+37.0
19	W. B.₁ XII. 279	9	20 35.16	0.05	18.50	12 20 16.61	5.70	359 29 11.88	20.48	48.44	0 31 33.0	33.2	36.8
20	W. B.₁ XII. 363	9	24 39.68	0.05	18.50	12 24 21.13	5.69	359 19 20.42	29.80	48.74	− 0 41 24.7	24.1	36.7
21	B. D. +0° 2952	9	28 16.32	0.04	18.50	12 27 57.78	5.68	0 16 44.60	53.78	47.12	+ 0 16 1.1	1.5	36.7
22	Lal. 23581	9	32 21.97	− 0.06	18.50	12 32 3.41	−5.69	358 14 7.42	18.12	50.65	− 1 46 39.7	37.7	+36.2
23	9 Canum Venat	9	34 21.13	+ 0.47	**[−18.41]**	12 34 3.08	....	41 24 44.20	52.25	2.57	+41 24 50.1	49.3	....
24	Piazzi XII. 170	9	39 27.48	− 0.07	**−18.45**	12 39 8.92	−5.68	357 42 31.85	40.10	51.61	− 2 18 16.2	16.5	+35.9
25	35 Virginis	9	42 10.04	0.00	**18.56**	12 42 51.55	5.57	4 7 8.08	16.73	40.97	+ 4 6 30.7	30.7	36.6
26	37 Virginis	9	46 55.53	0.00	**18.46**	12 46 37.04	−5.59	3 36 3.08	12.40	41.76	3 35 24.9	25.7	+36.5
27	α Canum Venat	9	51 44.49	+ 0.41	**[18.56]**	12 51 26.38	....	38 50 45.98	54.32	0.08	38 50 49.2	48.8	....
28	43 H. Cephei S. P	9	55 27.72	− 7.21	**[18.33]**	0 55	....	94 14 38.38	48.35	85.05	85 43 53.2	51.7	....
29	14 Canum Venat	8	1 27.27	+ 0.37	**[−18.40]**	13 1 9.12	....	36 19 21.75	29.82	2.68	+36 19 22.4	21.7	....
30	θ Virginis	9	5 10.53	− 0.09	**−18.52**	13 4 51.92	....	354 59 59.72	70.22	56.74	− 5 0 53.5	51.8	....
31	20 Canum Venat	9	13 26.67	+ 0.45	**[18.46]**	13 13 8.60	....	41 5 13.00	20.42	2.23	+41 5 18.6	17.3	....
32	α Ursæ Minoris S. P	9	23 21.89	−25.06	**[18.04]**	1 22	....	91 11 34.24	44.66	76.14	88 47 6.0	4.1	....
33	25 Canum Venat	9	33 24.11	+ 0.38	**[18.50]**	13 33 5.97	....	36 47 32.45	41.20	2.20	+36 47 33.6	33.7	....
34	*m* Virginis	9	36 46.04	− 0.12	**18.57**	13 36 27.40	....	351 48 33.78	44.15	63.47	− 8 12 26.1	24.5	....
35	83 Virginis	9	39 30.52	− 0.20	**−18.52**	13 39 11.80	....	344 20 15.58	25.68	82.83	−15 41 3.6	2.3	....

1901 MARCH 5. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

36	58 Ursæ Majoris	9	25 31.96	+ 0.10	**[−19.20]**	11 25 12.68	....	43 42 33.50	41.00	5.19	+43 42 42.6	41.9	....
37	υ Leonis	9	32 14.91	− 0.04	**19.36**	11 31 55.49	−5.79	359 43 51.78	59.42	50.46	− 0 16 54.2	54.8	+37.8
38	β Virginis	9	45 54.44	− 0.04	**19.40**	11 45 35.02	5.82	2 19 44.90	52.95	45.98	+ 2 19 3.4	3.2	38.2
39	Groombridge 1830	9	47 38.61	+ 0.07	**[19.29]**	11 47 19.30	....	38 25 20.05	28.48	0.54	38 25 23.5	23.8	....
40	*b* Virginis	9	55 14.77	− 0.03	**19.36**	11 54 55.37	−5.75	4 12 44.55	52.65	42.92	4 12 6.1	6.0	+38.0
41	2 Canum Venat	9	11 31.97	+ 0.06	**[−19.19]**	12 11 12.66	....	41 12 13.22	21.70	2.48	+41 12 19.8	20.1	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
28 12 50	.....	...	−3.8
13 0	76.19	−2.6	...
13 27	76.16	−2.7	3.7
13 46	.....	...	−3.6
2 11 54	75.54	+4.5	...
12 2	.....	...	+4.4
12 27	75.57	4.6	4.0
12 54	75.60	4.4	4.1
13 28	75.59	+4.5	+3.9
5 11 50	75.54	−7.9	−9.0

Bisections are made at II and V, except as noted below.

4, 6, 9, 12, 15, 17, 23, 27, 29, 31, 33, 36, 39, 41.	Bisections at III and V.
5, 28.	Bisections at c_1 and c_5.
8, 32.	Bisections at c_1, c_2, c_4 and c_5.

Notes.

1–11.	Seeing 4.
4, 6, 9, 36, 39, 41.	Observed head south.
12, 15, 17, 23, 27, 29, 31, 33.	Observed head north.
12–35, 36–41.	Seeing 3.

Adopted Equator Point Corrections.

		A.	B.
		″	″
1–3, from stars		+2.7	−6.1
4–11, from nadir		+1.72	−6.34
12, 15, 17, 23, 27–35, from nadir	11h 38m	+2.26	−6.55
	13 49		−6.03
13, 14, 16, 18–22, 24–26, from stars	11 22	+2.3	−6.32
	12 43		−5.87
36, 39, 41, from nadir	11 40	+2.88	−4.98
	13 45	+3.48	−4.39
37, 38, 40, from stars		+3.2	−4.6

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+3.1	−6.1
2	2.7	6.2
3	2.9	6.2
13	1.5	6.5
14	2.4	5.9
16	2.9	6.5
18	2.4	6.4
24	1.9	5.6
25	2.7	5.5
26	2.4	6.5
37	1.9	5.3
38	3.6	4.0
40	+3.2	−4.5

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	η Virginis	9	15 12.53	−0.04	−19.37	12 14 53.13	−5.73	359 53 28.80	36.90	50.28	− 0 7 17.0	17.1	+37.2
2	Lal. 23271	9	22 3.98	0.04	19.35	12 21 44.59	5.72	0 22 22.60	28.92	49.43	+ 0 21 37.6	35.8	37.1
3	Lal. 23342	9	24 27.15	0.05	19.35	12 24 7.75	5.74	358 7 37.40	46.65	53.53	− 1 53 11.6	10.6	36.7
4	B. D. + 0° 2952	9	28 17.29	−0.04	19.35	12 27 57.90	−5.71	0 16 46.38	54.88	49.61	+ 0 16 1.2	1.5	+36.8
5	9 Canum Venat	9	34 22.44	+0.05	[−19.25]	12 34 3.13	....	41 24 42.32	50.32	2.70	+41 24 49.2	49.1	....
6	Piazzi XII. 170	9	39 28.44	−0.05	−19.40	12 39 9.04	−5.71	357 42 33.25	41.15	54.36	− 2 18 16.6	17.0	+36.1
7	35 Virginis	9	43 10.88	0.04	19.31	12 42 51.50	5.62	4 7 9.18	18.00	43.17	+ 4 6 30.5	31.1	36.8
8	37 Virginis	9	46 56.47	−0.04	19.32	12 46 37.09	−5.63	3 36 4.30	13.02	44.01	3 35 24.7	25.3	+36.6
9	α Canum Venat	9	51 45.58	+0.03	[19.21]	12 51 26.26	....	38 50 45.02	53.18	0.08	38 50 49.2	49.3	....
10	43 H. Cephei S. P	7	55 22.06	−0.85	[−19.45]	0 55	....	94 14 35.12	43.25	89.64	+85 43 50.9	50.6	....
11	14 Canum Venat	9	1 28.48	+0.02	[−19.21]	13 1 9.16	....	36 19 20.72	28.15	2.82	+36 19 22.2	21.5	....
12	θ Virginis	9	5 11.39	−0.05	19.37	13 4 52.00	....	355 0 0.95	11.40	59.83	− 5 0 54.3	52.1	....
13	20 Canum Venat	9	13 27.86	+0.03	[19.16]	13 13 8.55	....	41 5 10.80	18.75	2.35	+41 5 17.6	17.4	....
14	α Ursæ Minoris S. P.	9	22 59.81	−2.70	[20.50]	1 22	....	91 11 30.49	39.26	80.22	88 47 4.6	3.8	....
15	25 Canum Venat	9	33 25.31	+0.02	[−19.27]	13 33 6.00	....	36 47 32.12	39.20	2.31	+36 47 34.3	33.2	....

1901 MARCH 6. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
16	58 Ursæ Majoris	9	25 32.53	0.00	[−19.67]	11 25 12.80	....	43 42 34.48	41.25	5.28	+43 42 43.6	41.8	....
17	υ Leonis	9	32 15.29	−0.05	19.72	11 31 55.50	−5.80	359 43 52.38	61.75	51.29	− 0 16 54.9	54.9	+37.9
18	β Virginis	9	45 54.83	0.04	19.77	11 45 35.06	5.84	2 19 45.95	55.02	46.69	+ 2 19 3.2	3.1	38.3
19	Groombridge 1830.	9	47 39.11	0.00	[19.71]	11 47 19.39	....	38 25 22.70	.....	0.54	38 25 26.0	....	....
20	b Virginis	9	55 15.14	−0.04	19.71	11 54 55.38	−5.76	4 12 45.78	54.75	43.55	4 12 6.2	6.1	+ 38.0
21	2 Canum Venat	9	11 32.48	0.00	[−19.62]	12 11 12.76	....	41 12 15.02	22.72	2.51	+41 12 21.4	20.7	....
22	η Virginis	9	15 12.88	−0.05	−19.70	12 14 53.12	−5.74	359 53 30.55	38.48	50.97	− 0 7 16.5	17.3	+37.3
23	Lal. 23271	9	22 4.34	0.05	19.71	12 21 44.58	5.73	0 22 22.40	31.38	50.10	+ 0 21 36.3	36.5	37.1
24	Lal. 23342	9	24 27.47	0.05	19.70	12 24 7.72	5.74	358 7 37.60	47.50	54.25	− 1 53 12.7	11.5	36.8
25	Mayer 531	9	29 41.17	0.05	19.70	12 29 21.42	5.72	359 8 48.62	57.28	52.34	− 0 51 59.7	59.7	36.7
26	9 Canum Venat	9	34 22.89	0.00	[19.64]	12 34 3.17	....	41 24 44.30	52.50	2.74	+41 24 50.9	50.8	....
27	Piazzi XII. 170	9	39 28.71	−0.05	−19.66	12 39 8.96	−5.72	357 42 35.82	43.78	55.05	− 2 18 15.3	15.8	+36.1
28	35 Virginis	9	43 11.31	−0.04	−19.72	12 42 51.58	−5.64	4 7 9.65	19.12	43.70	+ 4 6 29.9	30.9	+36.8
29	37 Virginis	9	46 56.86	0.04	19.70	12 46 37.13	−5.64	3 36 4.60	13.25	44.54	3 35 24.0	24.3	+36.6
30	α Canum Venat	9	51 46.19	0.00	[19.77]	12 51 26.47	....	38 50 48.12	54.32	0.08	38 50 51.9	49.9	....
31	43 H. Cephei S. P	8	55 20.98	0.10	[19.26]	0 55	....	94 14 34.08	43.15	90.70	85 43 51.4	50.1	....
32	14 Canum Venat	9	1 28.98	−0.01	[−19.67]	13 1 9.25	....	36 19 21.82	29.70	2.85	+36 19 22.8	22.6	....
33	θ Virginis	7	5 11.83	−0.05	−19.79	13 4 52.06	....	355 0 2.20	12.42	60.49	− 5 0 54.2	52.3	....
34	20 Canum Venat	9	13 28.46	0.00	[19 71]	13 13 8.74	....	41 5 12.08	20.05	2.38	+41 5 18.3	18.2	....
35	α Ursæ Minoris S. P.	9	22 55.36	0.38	[19.01]	1 22	....	91 11 29.26	39.36	81.17	88 47 5.5	3.2	....
36	25 Canum Venat	9	33 25.79	0.01	[19.69]	13 33 6.06	....	36 47 32.58	40.12	2.34	+36 47 34.1	33.6	....
37	m Virginis	9	36 47.23	−0.06	−19.73	13 36 27.45	....	351 48 37.02	46.35	67.67	− 8 12 26.6	25.4	....

1901 MARCH 7. CLAMP WEST.

UPDEGRAFF, OBSERVER. LAWTON, ASSISTANT.

NO.	NAME.	THDS.	MEAN THREAD.	c_0' SEC δ + n TAN δ.	$\Delta T+m$.	APPARENT R. A.	RED. TO 1900.0	CIRCLE READING. A.	CIRCLE READING. B.	REFR.	APPARENT DECL. A.	APPARENT DECL. B.	RED. TO 1900.0
38	58 Ursæ Majoris	9	25 33.08	+0.26	[−20.48]	11 25 12.86	....	43 42 34.88	42.15	5.07	+43 42 44.5	41.9	....

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
5 12 17	75.55	− 8.2	− 9.2
13 4	75.53	8.5	9.8
13 32	75.52	8.8	9.9
6 11 22	76.26	10.0	10.4
11 57	76.27	10.0	10.2
12 32	76.25	9.8	10.3
13 4	.....	.....	10.2
13 32	76.25	10.0	10.4
7 11 20	76.08	− 1.0	− 1.1

Bisections are made at II and V, except as noted below.

5, 9, 11, 13, 15, 16, 21, 26, 30, 32, 34, 36, 38.	Bisections at III and V.
10, 31.	Bisections at c_1 and c_5.
14, 35.	Bisections at c_1, c_2, c_4 and c_5.
19.	Bisection at III.

Notes.

1–15.	Seeing 3.
2, 3.	Very diffuse.
5, 9, 11, 13, 15, 38.	Observed head south.
14.	Good observation.
16, 19, 21, 26, 30, 32, 34, 36.	Observed head north.
16–37.	Seeing 2–4.

Adopted Equator Point Corrections.

		A.	B.
		″	″
1–4, 6–8, from stars		+3.2	−4.6
5, 9–15, from nadir	11h 40m	+2.88	−4.98
	13 45	+3.48	−4.39
16, 19, 21, 26, 30–37, from nadir	11 39	+2.79	−5.48
	13 50		−4.88
17, 18, 20, 22–25, 27–29, from stars	11 52	+2.69	5.98
	12 43		−5.37
38, from nadir		+3.47	−6.12

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+3.2	−4.5
6	3.4	4.0
7	3.6	4.8
8	3.4	5.0
17	2.0	6.9
18	3.2	5.5
20	2.6	6.0
22	2.1	5.5
27	1.6	6.0
28	3.7	5.4
29	+3.6	−4.7

No.	Name.	Thds.	Mean Thread.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	Apparent R. A.	Red. to 1900.0	Circle Reading. A.	Circle Reading. B.	Refr.	Apparent Decl. A.	Apparent Decl. B.	Red. to 1900.0
			m s	s	s	h m s	s	° ′ ″	″	″	° ′ ″	″	″
1	υ Leonis	9	32 16.08	− 0.05	**−20.50**	11 31 55.54	−5.81	359 43 49.72	58.42	49.34	− 0 16 55.4	55.9	+37.9
2	β Virginis	9	45 55.57	− 0.03	**20.51**	11 45 35.04	5.85	2 19 43.52	52.95	44.95	+ 2 19 2.8	3.1	38.3
3	Groombridge 1830	9	47 39.68	+ 0.21	**[20.48]**	11 47 19.39	....	38 25 20.30	30.45	0.52	38 25 24.3	24.6	....
4	b Virginis	9	55 15.91	− 0.02	**20.50**	11 54 55.38	5.76	4 12 43.75	51.95	41.95	4 12 6.0	5.0	38.1
5	2 Canum Venat	9	11 33.02	+ 0.24	**[20.39]**	12 11 12.74	....	41 12 14.42	24.35	2.42	+41 12 21.4	21.4	....
6	η Virginis	9	15 13.71	− 0.05	**−20.51**	12 14 53.13	−5.76	359 53 28.60	36.80	49.10	− 0 7 16.2	17.2	+37.3
7	Lal. 23271	9	22 5.20	− 0.04	−20.53	12 21 44.63	−5.74	0 22 20.60	29.82	48.27	+ 0 21 36.6	36.6	+37.1
8	Lal. 23342	9	24 28.31	0.06	20.54	12 24 7.71	5.75	358 7 36.10	46.12	52.28	− 1 53 11.9	11.1	36.8
9	Mayer 531	9	29 42.05	0.05	20.54	12 29 21.46	5.73	359 8 46.38	55.88	50.44	0 51 59.8	59.5	36.7
10	Lal. 23581	9	32 24.14	− 0.06	20.54	12 32 3.54	5.74	358 14 7.68	18.95	52.08	− 1 46 40.1	38.1	36.5
11	9 Canum Venat	9	34 23.51	+ 0.24	**[20.49]**	12 34 3.20	....	41 24 42.48	53.45	2.64	+41 24 49.7	50.8	....
12	Piazzi XII. 170	9	39 29.58	− 0.06	**−20.51**	12 39 8.97	−5.73	357 42 32.00	41.42	53.08	− 2 18 16.8	16.6	+36.2
13	35 Virginis	9	43 12.17	− 0.02	**−20.59**	12 42 51.60	−5.65	4 7 8.82	18.40	42.15	+ 4 6 30.9	31.3	+36.9
14	37 Virginis	9	46 57.71	− 0.03	**20.56**	12 46 37.12	−5.64	3 36 3.68	13.55	42.96	3 35 25.0	25.6	+36.6
15	α Canum Venat	9	51 46.73	+ 0.22	**[20.51]**	12 51 26.39	....	38 50 45.88	55.02	0.08	38 50 50.4	49.6	....
16	43 H. Cephei S. P.	8	55 25.36	− 3.88	**[19.98]**	0 55	....	94 14 37.30	46.88	87.50	85 43 50.6	49.6	....
17	14 Canum Venat	9	1 29.61	+ 0.19	**[−20.48]**	13 1 9.23	....	36 19 20.55	30.65	2.75	+36 19 22.4	22.6	....
18	θ Virginis	9	5 12.71	− 0.08	**−20.62**	13 4 52.05	....	354 59 59.65	70.40	58.38	− 5 0 54.0	53.2	....
19	20 Canum Venat	9	13 29.02	+ 0.24	**[20.49]**	13 13 8.68	....	41 5 10.95	20.45	2.30	+41 5 17.8	17.4	....
20	α Ursæ Minoris S. P.	9	23 9.89	−14.35	**[20.12]**	1 22	....	91 11 33.12	43.58	78.36	88 47 3.7	2.9	....
21	25 Canum Venat	9	33 26.48	+ 0.20	**[20.57]**	13 33 6.08	....	36 47 32.32	40.38	2.26	+36 47 34.6	32.8	....
22	m Virginis	9	36 48.13	− 0.10	**−20.58**	13 36 27.43	....	351 48 34.52	45.18	65.31	− 8 12 26.0	25.4	....

1901 MARCH 8. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

No.	Name.	Thds.	Mean Thread.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	Apparent R. A.	Red. to 1900.0	Circle Reading. A.	Circle Reading. B.	Refr.	Apparent Decl. A.	Apparent Decl. B.	Red. to 1900.0
23	β Andromedæ	9	4 32.37	+ 0.24	**−20.94**	1 4	....	35 5 52.15	62.60	3.82	+35 5 54.5	54.2	....
24	α Ursæ Minoris	9	22 37.21	18.69	**[20.73]**	1 22	....	88 45 48.60	60.36	67.66	88 47 2.7	3.8	....
25	β Arietis	9	49 31.73	+ 0.10	**−21.00**	1 49	....	20 19 43.72	53.45	19.22	+20 19 30.7	29.7	....

1901 MARCH 12. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

No.	Name.	Thds.	Mean Thread.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	Apparent R. A.	Red. to 1900.0	Circle Reading. A.	Circle Reading. B.	Refr.	Apparent Decl. A.	Apparent Decl. B.	Red. to 1900.0
26	β Andromedæ	9	4 34.46	− 0.25	**−22.56**	1 4	....	35 5 41.15	47.72	3.78	+35 5 51.3	51.7	....
27	α Ursæ Minoris	8	23 8.95	13.52	**[21.92]**	1 22	....	88 45 40.86	46.96	66.91	88 47 2.0	2.0	....
28	α Persei	9	17 39.18	0.26	**22.52**	3 17	....	49 30 16.28	21.62	10.54	49 30 40.8	39.9	....
29	Nova Persei	9	24 52.19	0.22	22.51	3 24 29.46	−5.38	43 33 43.32	48.42	4.58	43 34 1.9	0.8	−20.5
30	δ Persei	9	36 16.58	0.24	**22.50**	3 35	....	47 28 2.92	6.45	8.48	47 28 25.4	22.7	....
31	ν Persei	9	38 52.06	− 0.21	**−22.50**	3 38	....	42 15 48.12	53.40	3.30	+42 16 5.4	4.5	....

1901 MARCH 15. CLAMP WEST.

UPDEGRAFF, OBSERVER. NO ASSISTANT.

No.	Name.	Thds.	Mean Thread.	$c_0' \sec\delta + n \tan\delta$.	$\Delta T+m$.	Apparent R. A.	Red. to 1900.0	Circle Reading. A.	Circle Reading. B.	Refr.	Apparent Decl. A.	Apparent Decl. B.	Red. to 1900.0
32	β Andromedæ	9	4 34.36	− 0.36	**−22.37**	1 4	....	35 5 41.82	45.75	3.79	+35 5 51.0	51.5	....
33	α Ursæ Minoris	5	23 17.22	21.92	**[23.15]**	1 22	....	88 45 41.52	44.56	67.19	88 47 1.9	1.6	....
34	β Persei	9	2 7.31	0.36	**22.40**	3 1	....	40 34 19.98	23.88	1.64	40 34 34.6	35.0	....
35	α Persei	9	17 39.19	0.47	**22.39**	3 17	....	49 30 17.70	20.45	10.59	49 30 41.2	40.5	....
36	Nova Persei	9	24 52.20	− 0.39	−22.40	3 24 29.41	−5.34	43 33 43.92	46.90	4.60	+43 34 1.5	1.0	−20.2

Time.	Barom.	Att. Ther.	Ext. Ther.
d h m	cm.	°	°
7 12 14	76.08	− 1.3	− 1.4
12 45	76.06	1.2	1.7
13 35	76.05	− 1.3	− 2.1
8 1 14	75.77	+11.8	+13.1
1 56	75.72	11.7	13.1
12 1 10	75.40	12.5	14.8
3 22	75.48	16.5	15.8
15 1 20	74.82	11.0	11.5
3 16	74.76	+12.5	+11.8

Bisections are made at II and V, except as noted below.

3, 5, 11, 15, 17, 19, 21.	Bisections at III and V.
16.	Bisections at c_1 and c_5.
20, 24, 27, 33.	Bisections at c_1, c_2, c_4 and c_5.
23, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36.	Bisection at IV.

Notes

1-22.	Seeing 3.
3, 5, 11, 15, 17, 19, 21.	Observed head south.
24, 29.	Good observations.
33.	Through clouds; star faint and unsteady.

Adopted Equator Point Corrections.

	A.	B.
	″	″
1,2,4,6–10,12–14, from stars	+ 3.0	−5.8
3,5,11,15–22, from nadir	+ 3.47	−6.12
23–25, from nadir	+ 5.17	−5.54
26–31, from nadir	+12.96	+6.78
32–36, from nadir	+11.94	+8.50

Eq. Pt. Cor. from stars.

No.	A.	B.
	″	″
1	+2.8	−6.5
2	3.9	5.2
4	3.0	4.8
6	2.1	5.7
12	3.3	5.7
13	2.9	6.3
14	+2.9	−6.5

RESULTS

OF

OBSERVATIONS.

D 79

INDIVIDUAL RESULTS

OF

OBSERVATIONS OF STARS.

REDUCED TO 1900.0.

Circle A. B.

43 H. Cephei S. P.

1900			h	m	s	°	′	″	″
June	5	U.	0	55	1.95	+85	43	15.4	15.3

50 Cassiopeiæ S. P.

1900			h	m	s	°	′	″	″
June	5	U.	1	54	53.36	+71	56	16.1	16.1
	6	U.			53.26			16.5	15.7
	7	U.			.....			16.7	14.7
	9	U.			53.23			17.1	16.5
	11	U.			53.12			16.8	14.4
	20	U.			53.25			17.5	17.0
	21	U.			53.29			15.5	14.5
	22	U.			53.29			17.1	14.1
	23	U.			53.15			16.9	13.7
Mean . . .			1	54	53.244	+71	56	16.69	15.19

B. D. +37° 480

1900			h	m	s	°	′	″	″
Dec.	10	U.	2	0	9.29	+37	48	....	55.0
	13	U.			9.24			54.2	54.5
	14	L.			9.02			55.1	54.6
	16	U.			9.22			53.0	53.1
Mean . . .			2	0	9.188	+37	48	54.10	54.30

B. D. +38° 413

1900			h	m	s	°	′	″	″
Dec.	8	U.	2	2	21.53	+38	55	18.3	18.3
	10	U.			21.58			17.8	18.8
	13	U.			21.43			17.6	19.5
	18	L.			21.45			18.3	18.8
Mean . . .			2	2	21.493	+38	55	18.00	18.85

B. D. +38° 418

1900			h	m	s	°	′	″	″
Dec.	19	U.	2	2	57.66	+39	7	5.1	4.7
	20	U.			57.62			5.5	5.0
	21	U.			57.57			4.2	5.1
	29	U.			57.65			4.7	4.6
Mean . . .			2	2	57.625	+39	7	4.88	4.85

B. D. +37° 490

1900			h	m	s	°	′	″	″
Dec.	14	L.	2	3	56.00	+38	11	25.4	25.2
	16	U.			56.17			25.2	24.3
1901									
Jan.	3	U.			56.17			[27.5]	26.6
	5	L.			56.36			25.9	26.4
Mean . . .			2	3	56.166	+38	11	25.50	25.62

B. D. +36° 421

1901			h	m	s	°	′	″	″
Jan.	19	L.	2	4	4.04	+36	18	60.1	60.3
	20	U.			4.01			60.2	59.8
	22	U.			4.07			60.7	60.4
Mean . . .			2	4	4.034	+36	19	0.33	0.17

B. D. +37° 491

1901			h	m	s	°	′	″	″
Jan.	13	U.	2	4	10.13	+37	12	54.0	53.5

Circle A. B.

B. D. +36° 426

1901			h	m	s	°	′	″	″
Jan.	15	L.	2	4	37.49	+37	13	45.8	46.1
	16	U.			37.55			45.8	45.5
	18	U.			37.60			45.4	47.0
Mean . . .			2	4	37.541	+37	13	45.67	46.20

B. D. +38° 423

1900			h	m	s	°	′	″	″
Dec.	10	U.	2	4	[41.71]	+38	13	53.2	52.7
	13	U.			41.56			52.7	53.4
	18	L.			41.61			53.0	54.6
Mean . . .			2	4	41.576	+38	13	52.97	53.57

B. D. +38° 425

1900			h	m	s	°	′	″	″
Dec.	19	U.	2	4	48.72	+38	34	4.0	3.2
	20	U.			48.74			4.7	4.3
1901									
Jan.	8	L.			48.76			4.3	3.4
	26	L.			48.73			4.0	5.1
Mean . . .			2	4	48.729	+38	34	4.25	4.00

B. D. +36° 427

1900			h	m	s	°	′	″	″
Dec.	21	U.	2	5	25.29	+36	52	51.9	51.3
	29	U.			25.30			52.6	52.2
1901									
Jan.	3	U.			25.22			52.8	50.7
	5	L.			25.34			52.8	52.0
Mean . . .			2	5	25.283	+36	52	52.52	51.55

B. D. +36° 428

1900			h	m	s	°	′	″	″
Dec.	8	U.	2	5	53.50	+36	29	44.4	44.9
	14	L.			53.24			45.7	45.3
	16	U.			53.38			44.5	45.4
Mean . . .			2	5	53.368	+36	29	44.87	45.20

B. D. +38° 434

1901			h	m	s	°	′	″	″
Jan.	15	L.	2	6	40.52	+38	24	59.7	60.6
	16	U.			40.50			59.6	59.3
	18	U.			40.53			58.5	60.3
Mean . . .			2	6	40.511	+38	24	59.27	60.07

B. D. +36° 435

1901			h	m	s	°	′	″	″
Jan.	19	L.	2	6	45.23	+36	54	2.8	2.9
	20	U.			45.24			2.1	2.4
	22	U.			45.25			2.9	3.3
	26	L.			45.23			3.7	3.3
Mean . . .			2	6	45.229	+36	54	2.88	2.98

B. D. +37° 505

1900			h	m	s	°	′	″	″
Dec.	10	U.	2	7	52.57	+37	56	21.1	21.8
	13	U.			52.43			21.1	20.8
	14	L.			52.34			21.5	20.8
	18	L.			52.50			20.9	20.8
Mean . . .			2	7	52.452	+37	56	21.15	21.05

Circle A. B.

B. D. +36° 440

1900			h	m	s	°	′	″	″
Dec.	29	U.	2	7	53.54	+37	8	59.7	59.8
1901									
Jan.	3	U.			53.51			59.5	58.5
	5	L.			53.61			59.4	58.5
	8	L.			53.61			59.4	58.8
	13	U.			53.51			59.2	59.1
Mean . . .			2	7	53.549	+37	8	59.44	58.94

B. D. +37° 506

1900			h	m	s	°	′	″	″
Dec.	16	U.	2	8	4.45	+38	10	16.3	15.7
	19	U.			4.41			15.6	14.9
	20	U.			4.40			15.8	15.1
	21	U.			4.47			14.9	16.0
Mean . . .			2	8	4.432	+38	10	15.65	15.42

B. D. +37° 512

1901			h	m	s	°	′	″	″
Jan.	15	L.	2	9	25.43	+37	55	3.5	3.1
	16	U.			25.33			3.8	2.6
	18	U.			25.38			3.2	3.2
	19	L.			25.48			3.2	3.1
	20	U.			25.36			2.6	3.9
Mean . . .			2	9	25.389	+37	55	3.26	3.18

B. D. +36° 446

1900			h	m	s	°	′	″	″
Dec.	10	U.	2	9	52.90	+36	18	19.8	20.3
	13	U.			52.84			19.5	19.9
	14	L.			52.76			20.1	20.0
1901									
Jan.	26	L.			52.85			19.5	21.0
Mean . . .			2	9	52.829	+36	18	19.72	20.30

B. D. +36° 450

1900			h	m	s	°	′	″	″
Dec.	16	U.	2	10	.....	+36	40	59.4	....
	18	L.			27.25			60.1	59.3
	19	U.			27.18			59.8	59.0
	20	U.			27.19			59.9	60.9
Mean . . .			2	10	27.201	+36	40	59.80	59.73

B. D. +37° 514

1900			h	m	s	°	′	″	″
Dec.	29	U.	2	10	54.27	+37	40	56.9	57.1
1901									
Jan.	3	U.			54.23			57.3	57.3
	5	L.			54.34			57.2	57.3
	8	L.			54.38			56.7	57.0
	13	U.			54.29			56.1	56.9
Mean . . .			2	10	54.295	+37	40	56.84	57.12

B. D. +36° 453

1901			h	m	s	°	′	″	″
Jan.	19	L.	2	11	8.40	+37	1	11.5	11.7
	20	U.			8.28			11.1	12.3
	22	U.			8.34			10.7	11.7
Mean . . .			2	11	8.334	+37	1	11.10	11.90

Circle A. B.

B. D. +37° 516

1901		h	m	s	°	'	"	"
Jan. 15	L.	2	11	14.65	+37	22	9.5	9.0
16	U.			14.68			9.0	8.4
18	U.			14.74			8.8	8.4
Mean . . .		2	11	14.684	+37	22	9.10	8.60

B. D. +37° 518

1900		h	m	s	°	'	"	"
Dec. 19	U.	2	11	49.16	+37	37	28.9	28.2
20	U.			49.08			28.8	28.1
21	U.			49.10			28.4	27.8
Mean . . .		2	11	49.113	+37	37	28.70	28.03

B. D. +36° 458

1900		h	m	s	°	'	"	"
Dec. 10	U.	2	12	32.80	+36	36	18.3	19.0
13	U.			32.87			18.0	18.5
14	L.			32.89			17.6	18.2
18	L.			32.92			17.7	18.8
Mean . . .		2	12	32.862	+36	36	17.90	18.62

B. D. +36° 464

1900		h	m	s	°	'	"	"
Dec. 10	U.	2	14	57.48	+36	36	46.0	46.4
13	U.			57.50			45.4	45.5
14	L.			57.46			45.7	45.6
16	U.			57.49			45.5	45.8
Mean . . .		2	14	57.478	+36	36	45.65	45.82

B. D. +36° 465

1900		h	m	s	°	'	"	"
Dec. 18	L.	2	15	9.99	+36	57	53.4	53.4
19	U.			9.96			53.9	53.1
20	U.			9.92			53.9	52.6
21	U.			9.98			53.2	53.4
Mean . . .		2	15	9.958	+36	57	53.60	53.12

B. D. +36° 470

1900		h	m	s	°	'	"	"
Dec. 8	U.	2	17	13.11	+37	6	16.0	16.9
10	U.			13.01			17.5	17.5
13	U.			13.04			17.0	17.0
18	U.			13.10			17.1	15.9
1901								
Jan. 15	L.			13.10			16.9	16.2
Mean . . .		2	17	13.069	+37	6	16.90	16.70

B. D. +36° 473

1900		h	m	s	°	'	"	"
Dec. 14	L.	2	17	36.57	+36	38	52.5	52.0
16	U.			36.66			51.5	51.8
19	U.			36.70			51.9	50.8
20	U.			36.65			52.2	51.4
1901								
Jan. 19	L.			36.72			52.0	51.5
Mean . . .		2	17	36.653	+36	38	52.02	51.50

B. D. +36° 478

1900		h	m	s	°	'	"	"
Dec. 18	L.	2	19	9.81	+36	39	58.8	59.7
29	U.			9.82			60.9	60.4
1901								
Jan. 3	U.			9.75			60.1	60.6
5	L.			9.88			61.4	60.3
8	L.			9.93			58.8	59.1
Mean . . .		2	19	9.828	+36	40	0.00	0.02

B. D. +35° 470

1901		h	m	s	°	'	"	"
Jan. 13	U.	2	19	20.64	+35	31	9.2	8.9
15	L.			20.74			8.2	9.6
16	U.			20.62			8.8	9.0
22	U.			20.69			8.8	10.3
Mean . . .		2	19	20.668	+35	31	8.75	9.45

Circle A. B.

B. D. +34° 432

1900		h	m	s	°	'	"	"
Dec. 10	U.	2	19	25.26	+34	35	23.1	22.9
13	U.			25.30			22.2	23.1
14	L.			25.13			22.8	22.8
Mean . . .		2	19	25.224	+34	35	22.70	22.93

B. D. +36° 482

1900		h	m	s	°	'	"	"
Dec. 16	U.	2	19	44.34	+36	33	40.4	38.8
20	U.			44.25			41.8	41.3
21	U.			44.28			41.6	42.1
Mean . . .		2	19	44.290	+36	33	41.27	40.73

B. D. +34° 435

1901		h	m	s	°	'	"	"
Jan. 18	U.	2	20	8.27	+34	24	8.3	8.7
19	L.			8.32			7.3	8.2
20	U.			8.18			8.2	10.3
Mean . . .		2	20	8.251	+34	24	7.93	9.07

B. D. +34° 437

1900		h	m	s	°	'	"	"
Dec. 29	U.	2	20	45.19	+35	9	50.9	50.9
1901								
Jan. 3	U.			45.13			51.2	51.4
5	L.			45.19			51.3	50.0
8	L.			45.29			50.5	50.6
26	L.			45.17			49.4	51.2
Mean . . .		2	20	45.184	+35	9	50.66	50.82

B. D. +36° 491

1900		h	m	s	°	'	"	"
Dec. 8	U.	2	21	8.90	+36	31	1.6	1.2
18	L.			8.74			0.6	1.8
1901								
Jan. 13	U.			8.74			1.2	2.0
22	U.			8.83			2.9	2.7
Mean . . .		2	21	8.798	+36	31	1.58	1.92

B. D. +35° 477

1900		h	m	s	°	'	"	"
Dec. 10	U.	2	22	1.13	+35	29	1.0	2.4
13	U.			1.15			1.6	2.6
14	L.			1.11			2.9	2.2
16	U.			1.18			1.8	1.5
1901								
Jan. 19	L.			1.22			2.6	2.5
Mean . . .		2	22	1.151	+35	29	1.98	2.24

B. D. +34° 442

1901		h	m	s	°	'	"	"
Jan. 5	L.	2	22	26.93	+34	50	60.4	61.7
8	L.			26.99			60.5	61.1
15	L.			26.89			59.5	61.1
16	U.			26.78			60.7	61.5
18	U.			26.93			60.0	61.4
Mean . . .		2	22	26.894	+34	51	0.22	1.36

B. D. +35° 480

1900		h	m	s	°	'	"	"
Dec. 18	L.	2	22	51.08	+35	13	[14.4]	12.7
19	U.			51.08			12.8	12.4
20	U.			51.05			13.3	13.0
21	U.			51.13			12.3	12.6
Mean . . .		2	22	51.081	+35	13	12.80	12.68

B. D. +35° 490

1900		h	m	s	°	'	"	"
Dec. 8	U.	2	24	41.79	+35	40	20.9	20.4
10	U.			41.66			22.0	21.6
13	U.			41.69			21.5	21.9
Mean . . .		2	24	41.713	+35	40	21.47	21.30

Circle A. B.

B. D. +33° 447

1900		h	m	s	°	'	"	"
Dec. 14	L.	2	24	57.87	+33	54	56.9	56.8
16	U.			58.00			55.6	55.4
18	L.			57.98			55.7	56.2
Mean . . .		2	24	57.939	+33	54	56.07	56.13

B. D. +34° 448

1901		h	m	s	°	'	"	"
Jan. 13	U.	2	25	4.06	+34	29	15.1	14.9
15	L.			4.12			15.2	15.6
16	U.			4.06			16.0	15.3
Mean . . .		2	25	4.074	+34	29	15.43	15.27

B. D. +35° 494

1900		h	m	s	°	'	"	"
Dec. 29	U.	2	25	5.04	+35	18	45.7	44.9
1901								
Jan. 5	L.			5.10			47.0	46.1
8	L.			5.17			45.0	46.1
Mean . . .		2	25	5.092	+35	18	45.90	45.70

B. D. +34° 449

1901		h	m	s	°	'	"	"
Jan. 22	U.	2	25	6.70	+34	57	21.8	23.4
29	U.			6.69			22.0	22.2
Mean . . .		2	25	6.695	+34	57	21.90	22.80

B. D. +35° 497

1901		h	m	s	°	'	"	"
Jan. 18	U.	2	25	59.80	+35	42	14.6	14.3
19	L.			59.82			13.7	14.8
20	U.			59.78			14.7	14.7
Mean . . .		2	25	59.794	+35	42	14.33	14.60

B. D. +34° 454

1900		h	m	s	°	'	"	"
Dec. 20	U.	2	26	3.27	+34	14	10.4	10.6
21	U.			3.28			10.3	11.6
29	U.			[3.40]			11.2	10.9
1901								
Jan. 26	L.			3.35			10.7	11.3
Mean . . .		2	26	3.294	+34	14	10.65	11.10

B. D. +34° 457

1900		h	m	s	°	'	"	"
Dec. 8	U.	2	26	29.29	+34	49	18.2	18.6
18	L.			29.14			....	18.3
19	U.			29.22			17.8	18.0
Mean . . .		2	26	29.211	+34	49	18.00	18.30

B. D. +33° 454

1900		h	m	s	°	'	"	"
Dec. 10	U.	2	26	50.30	+34	6	4.4	4.8
13	U.			50.20			5.3	5.6
14	L.			50.23			5.5	4.7
1901								
Jan. 29	U.			50.21			5.1	5.0
Mean . . .		2	26	50.231	+34	6	5.08	5.02

B. D. +33° 461

1900		h	m	s	°	'	"	"
Dec. 20	U.	2	28	12.62	+33	21	[13.1]	10.4
1901								
Jan. 8	L.			12.71			10.8	11.6
13	U.			12.59			10.8	11.2
26	L.			12.71			11.1	11.8
Mean . . .		2	28	12.649	+33	21	10.90	11.25

Circle A. B.

B. D. +34° 462

1900		h	m	s	°	′	″	″
Dec. 16	U.	2	28	....	+34	42	40.8	41.6
21	U.			12.81			41.9	43.0
29	U.			12.90			42.0	41.9
1901								
Jan. 5	L.			12.95			43.2	42.5
Mean . . .		2	28	12.881	+34	42	41.98	42.25

B. D. +33° 462

1900		h	m	s	°	′	″	″
Dec. 8	U.	2	28	31.06	+33	28	32.2	31.2
18	L.			31.04			32.2	33.1
19	U.			31.01			32.5	31.8
1901								
Jan. 22	U.			31.04			33.5	33.2
Mean . . .		2	28	31.033	+33	28	32.60	32.32

B. D. +33° 463

1901		h	m	s	°	′	″	″
Jan. 15	L.	2	28	40.23	+33	38	41.8	42.1
16	U.			40.19			42.1	41.3
18	U.			40.24			41.6	41.4
19	L.			40.27			41.5	41.9
Mean . . .		2	28	40.224	+33	38	41.75	41.68

B. D. +34° 469

1900		h	m	s	°	′	″	″
Dec. 10	U.	2	29	42.58	+34	15	7.9	6.0
13	U.			42.52			5.2	6.8
14	L.			42.46			5.7	6.4
21	U.			42.53			5.3	7.2
Mean . . .		2	29	42.518	+34	15	6.02	6.60

B. D. +34° 471

1900		h	m	s	°	′	″	″
Dec. 29	U.	2	29	45.95	+34	17	18.8	18.6
1901								
Jan. 5	L.			46.03			19.1	19.0
8	L.			46.00			18.2	18.2
20	U.			45.93			18.7	18.5
Mean . . .		2	29	45.969	+34	17	18.70	18.58

B. D. +34° 476

1900		h	m	s	°	′	″	″
Dec. 8	U.	2	31	44.86	+34	43	41.5	41.4
10	U.			44.70			42.3	41.4
13	U.			44.76			42.3	42.2
14	L.			44.77			42.8	43.8
1901								
Jan. 19	L.			44.78			42.1	43.2
Mean . . .		2	31	44.767	+34	43	42.20	42.40

B. D. +33° 476

1900		h	m	s	°	′	″	″
Dec. 16	U.	2	32	30.16	+33	56	2.8	2.1
18	L.			30.15			2.2	3.0
19	U.			30.14			2.8	1.7
20	U.			30.10			3.8	1.5
Mean . . .		2	32	30.133	+33	56	2.90	2.08

B. D. +34° 483

1900		h	m	s	°	′	″	″
Dec. 21	U.	2	32	41.13	+34	50	21.0	23.8
29	U.			41.14			22.6	23.9
1901								
Jan. 5	L.			41.20			22.4	22.8
18	U.			41.10			21.9	22.9
Mean . . .		2	32	41.138	+34	50	21.98	23.35

Circle A. B.

B. D. +32° 478

1901		h	m	s	°	′	″	″
Jan. 8	L.	2	32	43.57	+32	59	11.9	10.8
13	U.			43.46			11.4	11.2
15	L.			43.51			12.2	....
16	U.			43.46			12.4	11.1
Mean . . .		2	32	43.492	+32	59	11.98	11.03

B. D. +32° 483

1900		h	m	s	°	′	″	″
Dec. 10	U.	2	33	45.61	+33	3	53.3	52.2
13	U.			45.66			53.8	53.2
14	L.			45.65			53.6	54.8
Mean . . .		2	33	45.634	+33	3	53.57	53.40

B. D. +33° 481

1901		h	m	s	°	′	″	″
Jan. 19	L.	2	33	46.99	+33	31	6.1	6.9
20	U.			46.91			6.2	5.9
22	U.			46.92			5.8	6.7
26	L.			47.02			5.8	6.2
Mean . . .		2	33	46.952	+33	31	5.98	6.42

B. D. +32° 484

1901		h	m	s	°	′	″	″
Jan. 15	L.	2	33	49.62	+32	23	3.4	1.2
16	U.			49.56			3.1	1.5
18	U.			49.56			2.4	1.4
29	U.			49.59			3.2	1.9
Mean . . .		2	33	49.578	+32	23	3.02	1.50

B. D. +34° 488

1900		h	m	s	°	′	″	″
Dec. 16	U.	2	34	24.76	+34	51	29.5	30.0
18	L.			24.70			29.0	30.7
19	U.			24.78			30.1	31.0
20	U.			24.73			30.3	31.6
Mean . . .		2	34	24.738	+34	51	29.72	30.82

B. D. +34° 492

1900		h	m	s	°	′	″	″
Dec. 21	U.	2	34	51.66	+34	24	26.7	28.0
29	U.			51.65			27.2	28.4
1901								
Jan. 5	L.			51.67			28.0	27.2
Mean . . .		2	34	51.654	+34	24	27.30	27.87

B. D. +33° 493

1900		h	m	s	°	′	″	″
Dec. 8	U.	2	36	31.14	+33	20	24.5	25.0
10	U.			31.06			25.4	25.6
13	U.			31.00			25.1	25.7
1901								
Jan. 13	U.			31.01			25.6	25.2
29	U.			31.06			26.0	26.1
Mean . . .		2	36	31.054	+33	20	25.32	25.52

B. D. +32° 490

1900		h	m	s	°	′	″	″
Dec. 14	L.	2	36	38.45	+32	28	33.5	32.9
16	U.			38.46			33.6	31.4
18	L.			38.48			32.8	32.3
19	U.			38.42			33.0	31.9
1901								
Jan. 16	U.			38.48			34.2	32.4
Mean . . .		2	36	38.451	+32	28	33.42	32.18

Circle A. B.

B. D. +33° 494

1900		h	m	s	°	′	″	″
Dec. 20	U.	2	37	16.65	+33	44	54.3	53.4
21	U.			16.74			52.7	54.0
29	U.			16.69			54.4	54.2
1901								
Jan. 8	L.			16.79			52.7	53.2
15	L.			16.71			53.8	53.7
Mean . . .		2	37	16.709	+33	44	53.58	53.70

B. D. +32° 498

1900		h	m	s	°	′	″	″
Dec. 8	U.	2	39	4.34	+32	19	50.3	51.1
13	U.			4.31			51.6	51.5
14	L.			4.20			51.4	51.1
16	U.			4.18			50.5	50.0
Mean . . .		2	39	4.253	+32	19	50.95	50.92

B. D. +31° 477

1900		h	m	s	°	′	″	″
Dec. 19	U.	2	40	19.05	+31	34	29.1	27.6
20	U.			19.02			28.2	27.7
21	U.			19.05			28.2	28.9
29	U.			19.03			28.5	28.0
Mean . . .		2	40	19.038	+31	34	28.50	28.05

B. D. +33° 512

1900		h	m	s	°	′	″	″
Dec. 8	U.	2	41	27.46	+33	13	2.3	1.4
13	U.			27.41			2.6	2.2
14	L.			27.35			3.3	2.1
18	L.			27.38			2.5	1.6
Mean . . .		2	41	27.392	+33	13	2.68	1.82

B. D. +32° 508

1901		h	m	s	°	′	″	″
Jan. 13	U.	2	43	1.13	+32	25	41.9	41.2
15	L.			1.12			42.4	41.9
16	U.			1.12			42.4	41.7
18	U.			1.14			41.8	41.5
19	L.			1.14			42.6	42.7
Mean . . .		2	43	1.123	+32	25	42.22	41.80

B. D. +32° 507

1900		h	m	s	°	′	″	″
Dec. 21	U.	2	43	1.15	+32	45	32.9	33.7
29	U.			1.16			33.6	33.3
1901								
Jan. 5	L.			1.11			34.3	32.5
8	L.			1.23			32.5	33.6
20	U.			1.12			33.2	32.7
Mean . . .		2	43	1.147	+32	45	33.30	33.16

B. D. +31° 483

1900		h	m	s	°	′	″	″
Dec. 16	U.	2	43	9.49	+31	41	48.8	45.4
18	L.			9.55			46.4	46.1
19	U.			9.58			48.0	45.9
20	U.			9.56			47.8	46.0
Mean . . .		2	43	9.541	+31.	41	47.75	45.85

B. D. +31° 490

1901		h	m	s	°	′	″	″
Jan. 15	L.	2	44	23.30	+31	33	35.9	35.2
16	U.			23.22			34.5	34.5
18	U.			23.26			34.9	35.0
19	L.			23.23			36.0	35.5
Mean . . .		2	44	23.244	+31	33	35.32	35.05

Circle A. B.

B. D. +31° 493

1900		h m s	° ′	″	″
Dec. 21	U.	2 44	+31 57	2.6	1.8
29	U.	56.03		3.2	2.2
1901					
Jan. 5	L.	56.04		2.2	2.2
8	L.	56.11		2.3	2.1
13	U.	55.98		2.8	1.0
Mean . . .		2 44 56.032	+31 57	2.62	1.86

B. D. +32° 517

1900		h m s	° ′	″	″
Dec. 8	U.	2 45 56.93	+32 19	47.5	47.3
14	L.	56.77		48.8	48.0
16	U.	56.84		48.3	47.6
18	L.	56.78		47.4	47.5
1901					
Jan. 20	U.	.....		48.0	48.3
Mean . . .		2 45 56.822	+32 19	48.00	47.74

B. D. +31° 497

1901		h m s	° ′	″	″
Jan. 5	L.	2 47 21.93	+31 14	9.0	8.0
8	L.	21.98		8.9	8.4
13	U.	21.88		8.7	8.3
15	L.	21.89		8.9	9.0
29	U.	21.90		8.8	9.1
Mean . . .		2 47 21.906	+31 14	8.86	8.56

B. D. +32° 522

1900		h m s	° ′	″	″
Dec. 10	U.	2 47 34.68	+32 30	33.2	34.8
13	U.	34.72		33.4	34.6
19	U.	34.75		33.8	33.0
20	U.	34.75		33.7	33.5
21	U.	.....		33.6	34.6
1901					
Jan. 16	U.	34.72		34.2	33.5
Mean . . .		2 47 34.724	+32 30	33.65	34.00

B. D. +31° 500

1900		h m s	° ′	″	″
Dec. 8	U.	2 48 4.47	+31 55	44.0	44.0
14	L.	4.33		44.9	43.7
16	U.	4.39		44.8	43.3
18	L.	4.33		44.2	43.3
Mean . . .		2 48 4.372	+31 55	44.48	43.58

B. D. +30° 464

1900		h m s	° ′	″	″
Dec. 29	U.	2 49 39.34	+30 38	14.8	14.4
1901					
Jan. 5	L.	39.42		15.0	13.3
8	L.	39.48		14.6	13.5
13	U.	39.34		14.7	13.1
26	L.	39.38		15.6	15.1
Mean . . .		2 49 39.382	+30 38	14.94	13.88

B. D. +30° 465

1901		h m s	° ′	″	″
Jan. 15	L.	2 49 50.60	+31 10	30.4	29.9
16	U.	50.54		30.5	30.0
18	U.	50.60		30.4	29.5
19	L.	50.64		30.4	30.4
20	U.	50.58		30.4	30.3
Mean . . .		2 49 50.585	+31 10	30.42	30.02

B. D. +30° 466

1900		h m s	° ′	″	″
Dec. 14	L.	2 50 30.06	+30 28	35.0	33.4
16	U.	30.07		33.7	32.0
18	L.	30.09		34.7	33.4
19	U.	30.08		35.6	33.3
Mean . . .		2 50 30.066	+30 28	34.75	33.02

Circle A. B.

B. D. +31° 509

1900		h m s	° ′	″	″
Dec. 20	U.	2 51 12.98	+31 31	55.5	53.8
1901					
Jan. 5	L.	12.96		55.5	53.6
8	L.	13.09		54.6	52.9
29	U.	13.01		55.2	54.5
Mean . . .		2 51 13.002	+31 31	55.20	53.70

B. D. +30° 469

1900		h m s	° ′	″	″
Dec. 8	U.	2 51 58.21	+31 6	52.9	52.1
10	U.	58.23		53.5	[55.0]
13	U.	58.12		55.4	53.9
1901					
Jan. 13	U.	58.20		53.9	53.1
Mean . . .		2 51 58.190	+31 6	53.92	53.02

B. D. +31° 511

1901		h m s	° ′	″	″
Jan. 15	L.	2 52 5.73	+31 36	57.0	55.5
16	U.	5.60		57.0	55.7
18	U.	5.66		56.2	55.5
Mean . . .		2 52 5.658	+31 36	56.73	55.57

B. D. +31° 512

1901		h m s	° ′	″	″
Jan. 19	L.	2 52 12.85	+32 3	29.0	26.9
20	U.	12.83		27.5	26.5
22	U.	12.88		28.1	27.0
26	L.	12.94		28.1	27.3
Mean . . .		2 52 12.866	+32 3	28.18	26.92

B. D. +30° 474

1900		h m s	° ′	″	″
Dec. 16	U.	2 53 52.58	+30 12	28.4	26.5
18	L.	52.55		27.5	27.4
19	U.	52.60		29.4	27.1
20	U.	52.58		28.9	26.7
Mean . . .		2 53 52.573	+30 12	28.55	26.92

B. D. +30° 477

1900		h m s	° ′	″	″
Dec. 10	L.	2 54 13.50	+30 43	41.1	39.5
13	U.	13.48		41.5	39.9
14	L.	13.51		41.3	40.9
21	U.	13.48		40.5	40.6
Mean . . .		2 54 13.484	+30 43	41.10	40.22

B. D. +29° 508

1900		h m s	° ′	″	″
Dec. 29	U.	2 54 24.92	+30 10	18.5	18.1
1901					
Jan. 5	L.	24.97		18.6	17.4
8	L.	24.99		19.5	18.0
13	U.	24.95		18.6	17.7
Mean . . .		2 54 24.949	+30 10	18.80	17.80

B. D. +31° 524

1901		h m s	° ′	″	″
Jan. 15	L.	2 55 10.48	+31 33	31.4	30.6
16	U.	10.43		32.0	31.2
18	U.	10.48		31.8	30.7
19	L.	10.50		31.5	30.1
20	U.	10.44		30.9	29.7
Mean . . .		2 55 10.459	+31 33	31.52	30.46

Circle A. B.

B. D. +30° 479

1900		h m s	° ′	″	″
Dec. 8	U.	2 56 6.84	+30 35	30.3	30.1
16	U.	6.79		30.3	28.5
18	L.	....		31.2	28.4
19	U.	6.76		32.1	28.8
Mean . . .		2 56 6.797	+30 35	30.98	28.95

B. D. +29° 517

1900		h m s	° ′	″	″
Dec. 14	L.	2 57 39.19	+30 7	9.3	....
20	U.	39.15		8.4	6.9
21	U.	39.17		9.6	7.6
29	U.	39.11		9.5	8.6
Mean . . .		2 57 39.151	+30 7	9.20	7.70

B. D. +30° 482

1900		h m s	° ′	″	″
Dec. 8	U.	2 58 31.72	+30 55	10.7	10.9
10	U.	31.61		11.3	10.6
13	U.	31.53		11.6	10.7
19	U.	31.56		12.7	10.5
Mean . . .		2 58 31.605	+30 55	11.58	10.68

B. D. +30° 484

1900		h m s	° ′	″	″
Dec. 16	U.	2 58 51.38	+30 38	55.3	55.0
1901					
Jan. 15	L.	51.33		56.5	55.3
16	U.	51.27		56.8	56.0
18	U.	51.34		55.4	55.5
19	L.	51.30		[57.4]	54.9
Mean . . .		2 58 51.317	+30 38	56.00	55.34

B. D. +28° 488

1900		h m s	° ′	″	″
Dec. 29	U.	2 59 18.27	+29 9	11.2	9.8
1901					
Jan. 5	L.	18.32		11.3	9.4
8	L.	18.32		11.1	9.8
13	U.	18.28		10.6	9.2
20	U.	18.23		10.8	10.2
Mean . . .		2 59 18.277	+29 9	11.00	9.68

B. D. +29° 519

1900		h m s	° ′	″	″
Dec. 14	L.	2 59 41.04	+30 8	19.1	17.0
18	L.	41.15		17.4	16.2
20	U.	41.12		17.8	15.7
21	U.	41.11		17.3	16.9
Mean . . .		2 59 41.096	+30 8	17.90	16.45

B. D. +29° 522

1900		h m s	° ′	″	″
Dec. 8	U.	3 0 48.11	+30 8	28.6	28.4
10	U.	48.08		29.5	28.8
13	U.	48.05		30.7	29.3
16	U.	48.11		29.8	27.4
Mean . . .		3 0 48.088	+30 8	29.65	28.48

B. D. +28° 493

1900		h m s	° ′	″	″
Dec. 19	U.	3 1 16.47	+28 44	15.7	14.2
29	U.	16.38		15.3	14.6
1901					
Jan. 5	L.	16.41		14.5	13.9
8	L.	16.43		15.6	14.4
Mean . . .		3 1 16.414	+28 44	15.28	14.28

Circle A. B.

B. D. +28° 499

1900		h m s	° ′	″	″
Dec. 8	U.	3 3 35.71	+28 41	42.7	41.8
10	U.	35.64		44.6	42.0
13	U.	35.58		44.8	42.2
18	L.	35.61		43.8	42.2
1901					
Jan. 26	L.	35.70		44.2	42.1
Mean . . .		3 3 35.641	+28 41	44.02	42.06

B. D. +30° 494

1900		h m s	° ′	″	″
Dec. 14	L.	3 3 42.93	+31 0	59.8	58.8
16	U.	42.96		59.4	58.3
19	U.	42.89		60.6	58.9
20	U.	42.96		60.8	58.9
Mean . . .		3 3 42.931	+31 0	60.15	58.72

B. D. +29° 531

1900		h m s	° ′	″	″
Dec. 21	U.	3 4 13.78	+29 17	6.6	5.5
29	U.	13.72		7.8	6.1
1901					
Jan. 5	L.	13.79		7.5	5.6
8	L.	13.76		6.5	5.9
13	U.	13.73		5.9	5.9
Mean . . .		3 4 13.749	+29 17	6.86	5.80

B. D. +29° 534

1900		h m s	° ′	″	″
Dec. 16	U.	3 5 54.26	+29 27	14.9	13.6
18	L.	54.25		15.5	13.9
19	U.	54.22		15.0	12.8
20	U.	54.24		15.1	14.0
Mean . . .		3 5 54.238	+29 27	15.12	13.58

B. D. +30° 503

1900		h m s	° ′	″	″
Dec. 10	U.	3 6 50.75	+30 28	38.4	37.7
13	U.	50.74		38.5	37.5
14	L.	50.78		39.5	37.2
21	U.	50.78		38.8	38.4
1901					
Jan. 13	U.	50.79		38.4	36.9
Mean . . .		3 6 50.765	+30 28	38.72	37.54

B. D. +28° 507

1900		h m s	° ′	″	″
Dec. 8	U.	3 7 34.91	+28 51	28.7	26.9
29	U.	34.90		28.5	27.1
1901					
Jan. 5	L.	34.99		27.3	27.1
8	L.	34.98		26.8	27.0
Mean . . .		3 7 34.936	+28 51	27.82	27.02

B. D. +28° 511

1900		h m s	° ′	″	″
Dec. 10	U.	3 11 1.78	+28 23	26.1	24.7
13	U.	1.80		25.9	24.5
14	L.	1.82		26.6	24.4
21	U.	1.88		25.3	25.3
1901					
Jan. 19	L.	1.86		26.4	23.4
Mean . . .		3 11 1.821	+28 23	26.06	24.46

B. D. +27° 488

1900		h m s	° ′	″	″
Dec. 16	U.	3 11 2.05	+28 6	60.1	59.2
18	L.	2.12		59.6	59.2
19	U.	2.08		61.7	59.2
20	U.	2.14		62.1	59.4
Mean . . .		3 11 2.093	+28 6	60.88	59.25

Circle A. B.

B. D. +28° 514

1900		h m s	° ′	″	″
Dec. 29	U.	3 12 24.76	+28 20	50.0	49.9
1901					
Jan. 5	L.	24.87		49.3	48.2
8	L.	24.85		49.2	49.7
13	U.	24.82		49.7	48.9
Mean . . .		3 12 24.816	+28 20	49.55	49.18

B. D. +27° 492

1900		h m s	° ′	″	″
Dec. 10	U.	3 13 38.04	+27 10	42.7	42.0
13	U.	37.97		42.1	43.1
14	L.	38.00		43.2	43.0
16	U.	37.95		41.4	42.1
1901					
Jan. 19	L.	38.02		42.1	41.6
Mean . . .		3 13 37.989	+27 10	42.30	42.36

B. D. +28° 516

1901		h m s	° ′	″	″
Jan. 5	L.	3 14 17.23	+28 41	9.9	8.8
8	L.	17.23		9.3	9.1
13	U.	17.19		9.6	8.1
15	L.	17.14		9.6	8.5
16	U.	17.14		9.9	8.3
Mean . . .		3 14 17.176	+28 41	9.66	8.56

B. D. +28° 517

1900		h m s	° ′	″	″
Dec. 18	L.	3 14 36.94	+28 27	57.7	56.8
19	U.	36.96		58.4	56.4
20	U.	36.95		58.2	56.7
29	U.	36.94		58.6	57.3
1901					
Jan. 20	U.	36.96		59.0	57.1
Mean . . .		3 14 36.947	+28 27	58.38	56.86

B. D. +27° 500

1900		h m s	° ′	″	″
Dec. 10	U.	3 16 11.59	+27 14	54.4	53.1
13	U.	11.51		55.5	54.8
14	L.	11.56		55.5	55.1
1901					
Jan. 19	L.	11.55		54.7	55.3
26	L.	11.54		55.5	55.8
Mean . . .		3 16 11.540	+27 14	55.12	54.82

B. D. +27° 501

1900		h m s	° ′	″	″
Dec. 16	U.	3 16 58.00	+27 19	44.1	42.8
18	L.	58.09		44.2	44.0
19	U.	58.03		44.5	43.7
20	U.	58.04		44.3	42.7
Mean . . .		3 16 58.036	+27 19	44.28	43.30

B. D. +26° 548

1900		h m s	° ′	″	″
Dec. 29	U.	3 17 6.08	+26 32	38.8	36.6
1901					
Jan. 5	L.	6.14		37.8	37.2
8	L.	6.09		38.1	36.9
13	U.	6.08		38.3	36.9
22	U.	6.04		39.3	36.5
Mean . . .		3 17 6.079	+26 32	38.46	36.82

B. D. +26° 550

1901		h m s	° ′	″	″
Jan. 15	L.	3 17 32.41	+27 2	44.8	43.9
16	U.	32.41		44.0	43.2
18	U.	32.48		44.1	42.6
20	U.	32.42		45.1	43.3
Mean . . .		3 17 32.426	+27 2	44.50	43.25

Circle A. B.

B. D. +28° 526

1900		h m s	° ′	″	″
Dec. 10	U.	3 18 45.54	+28 17	57.6	58.1
13	U.	45.51		59.9	58.1
14	L.	45.48		59.6	58.4
18	L.	45.52		58.7	57.4
1901					
Jan. 19	L.	45.57		59.6	58.0
Mean . . .		3 18 45.514	+28 17	59.08	58.00

B. D. +28° 532

1900		h m s	° ′	″	″
Dec. 16	U.	3 20 31.31	+28 21	60.2	58.2
18	L.	31.29		60.1	58.3
19	U.	31.32		61.3	58.9
20	U.	31.33		60.6	58.1
Mean . . .		3 20 31.308	+28 21	60.55	58.38

B. D. +27° 509

1900		h m s	° ′	″	″
Dec. 10	U.	3 21 36.62	+27 24	10.8	9.0
13	U.	36.59		9.9	9.8
14	L.	36.60		11.0	9.8
1901					
Jan. 8	L.	36.66		10.3	10.1
Mean . . .		3 21 36.609	+27 24	10.50	9.68

B. D. +26° 565

1900		h m s	° ′	″	″
Dec. 8	U.	3 24 19.73	+26 40	47.8	47.9
10	U.	19.65		48.9	47.3
13	U.	19.67		47.3	48.2
Mean . . .		3 24 19.683	+26 40	48.00	47.80

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1901		h m s	° ′	″	″
Mar. 12	U.	3 24 24.08	+43 33	41.4	40.3
15	U.	24.07		41.3	40.8
Mean . . .		3 24 24.075	+43 33	41.35	40.55

B. D. +27° 513

1900		h m s	° ′	″	″
Dec. 14	L.	3 24 58.24	+27 22	55.9	54.5
16	U.	58.29		56.3	55.3
18	L.	58.27		55.6	55.2
1901					
Jan. 29	U.	58.31		55.1	55.1
Mean . . .		3 24 58.269	+27 22	55.72	55.02

B. D. +26° 566

1900		h m s	° ′	″	″
Dec. 19	U.	3 25 0.78	+26 46	15.6	14.0
20	U.	0.78		15.6	13.8
21	U.	....		15.3	13.9
1901					
Jan. 22	U.	0.78		15.0	13.8
Mean . . .		3 25 0.780	+26 46	15.38	13.88

B. D. +27° 514

1900		h m s	° ′	″	″
Dec. 29	U.	3 25 0.92	+27 23	23.5	24.6
1901					
Jan. 5	L.	0.94		23.4	21.2
8	L.	0.98		22.7	22.8
28	U.	1.01		22.5	22.4
Mean . . .		3 25 0.954	+27 23	23.02	22.75

B. D. +27° 515[1]

1901		h m s	° ′	″	″
Jan. 13	U.	3 25 17.67	+27 13	50.2	49.1
15	L.	17.64		50.0	50.2
16	U.	17.58		49.7	50.5
Mean . . .		3 25 17.624	+27 13	49.97	49.93

Circle A. B.

B. D. +27° 515[2]

1901		h	m	s	°	'	"	"
Jan. 18	U.	3	25	18.52	+27	13	49.7	49.6
19	L.			18.44			51.6	50.3
20	U.			18.47			50.6	50.1
Mean . . .		3	25	18.471	+27	13	50.63	50.00

B. D. +27° 519

1900		h	m	s	°	'	"	"
Dec. 8	U.	3	26	33.62	+28	1	35.7	33.3
10	U.			33.62			33.7	33.1
13	U.			33.58			36.1	33.8
1901								
Jan. 8	L.			33.71			34.6	34.5
Mean . . .		3	26	33.628	+28	1	35.02	33.68

B. D. +26° 572

1900		h	m	s	°	'	"	"
Dec. 8	U.	3	28	57.22	+26	16	24.6	23.8
10	U.			57.12			22.0	23.5
13	U.			57.11			22.9	23.0
1901								
Jan. 19	L.			57.07			24.0	....
Mean . . .		3	28	57.126	+26	16	23.38	23.43

B. D. +26° 574

1900		h	m	s	°	'	"	"
Dec. 14	L.	3	29	19.09	+26	30	59.4	58.0
16	U.			19.09			59.4	58.0
18	L.			19.13			59.1	58.6
1901								
Jan. 29	U.			19.13			58.4	57.7
Mean . . .		3	29	19.102	+26	30	59.08	58.08

B. D. +27° 525

1900		h	m	s	°	'	"	"
Dec. 19	U.	3	29	20.82	+27	11	29.1	27.4
20	U.			20.76			28.0	27.9
21	U.			20.72			28.8	28.1
Mean . . .		3	29	20.767	+27	11	28.63	27.80

B. D. +27° 526

1900		h	m	s	°	'	"	"
Dec. 29	U.	3	29	22.50	+27	30	46.1	46.0
1901								
Jan. 5	L.			22.56			45.2	46.1
8	L.			22.55			46.3	46.5
13	U.			22.56			46.0	46.1
Mean . . .		3	29	22.534	+27	30	45.90	46.18

B. D. +27° 529

1901		h	m	s	°	'	"	"
Jan. 15	L.	3	30	1.57	+27	15	37.7	36.4
16	U.			1.56			37.3	35.6
18	U.			1.57			37.2	35.9
28	U.			1.61			37.6	37.3
Mean . . .		3	30	1.573	+27	15	37.45	36.30

B. D. +26° 579

1901		h	m	s	°	'	"	"
Jan. 19	L.	3	30	5.99	+27	0	41.1	39.8
20	U.			5.96			40.4	40.5
22	U.			5.99			40.3	40.2
Mean . . .		3	30	5.974	+27	0	40.60	40.17

B. D. +25° 580

1900		h	m	s	°	'	"	"
Dec. 8	U.	3	31	9.93	+25	40	3.1	4.2
10	U.			9.95			2.9	4.0
13	U.			9.93			3.9	3.7
21	U.			9.93			2.2	3.4
Mean . . .		3	31	9.935	+25	40	3.02	3.83

Circle A. B.

B. D. +25° 584

1900		h	m	s	°	'	"	"
Dec. 14	L.	3	33	29.03	+25	48	5.5	4.7
16	U.			29.02			5.4	3.9
18	L.			29.08			4.5	3.7
19	U.			[29.18]			5.3	4.6
1901								
Jan. 29	U.			29.11			5.0	3.6
Mean . . .		3	33	29.052	+25	48	5.14	4.10

B. D. +26° 590

1900		h	m	s	°	'	"	"
Dec. 8	U.	3	33	29.62	+26	53	48.0	46.0
10	U.			29.63			47.7	46.4
13	U.			29.61			47.5	46.4
21	U.			29.65			47.3	48.0
1901								
Jan. 16	U.			29.64			48.3	47.3
Mean . . .		3	33	29.630	+26	53	47.76	46.82

Anonymous

1901		h	m	s	°	'	"	"
Jan. 13	U.	3	34	7.08	+26	34	15.6	13.8

B. D. +26° 596

1900		h	m	s	°	'	"	"
Dec. 29	U.	3	34	11.87	+26	33	47.6	46.4
1901								
Jan. 5	L.			12.00			45.9	46.2
8	L.			11.99			46.1	46.0
Mean . . .		3	34	11.942	+26	33	46.53	46.20

B. D. +24° 533

1900		h	m	s	°	'	"	"
Dec. 18	L.	3	35	20.27	+24	41	3.6	5.1
19	U.			[20.35]			4.0	5.8
20	U.			20.24			3.9	4.3
21	U.			20.22			3.8	5.7
1901								
Jan. 15	L.			20.18			4.8	5.6
Mean . . .		3	35	20.219	+24	41	4.02	5.30

B. D. +24° 534

1900		h	m	s	°	'	"	"
Dec. 10	U.	3	35	42.91	+25	2	55.4	54.2
13	U.			42.86			54.8	55.7
14	L.			42.86			53.9	51.7
16	U.			42.95			....	[52.8]
1901								
Jan. 29	U.			42.89			55.4	54.7
Mean . . .		3	35	42.891	+25	2	54.88	54.82

B. D. +26° 601

1900		h	m	s	°	'	"	"
Dec. 29	U.	3	36	27.64	+26	15	12.4	11.5
1901								
Jan. 5	L.			27.74			12.5	11.3
8	L.			27.70			12.0	10.9
19	L.			27.62			12.3	....
Mean . . .		3	36	27.662	+26	15	12.30	11.23

B. D. +25° 593

1901		h	m	s	°	'	"	"
Jan. 13	U.	3	37	7.24	+25	21	46.4	44.9
15	L.			7.23			44.8	45.7
16	U.			7.16			46.0	45.6
Mean . . .		3	37	7.204	+25	21	45.73	45.40

B. D. +25° 598

1900		h	m	s	°	'	"	"
Dec. 8	U.	3	37	38.61	+25	48	29.6	29.6
19	U.			38.65			30.0	28.9
20	U.			38.62			29.4	28.5
Mean . . .		3	37	38.627	+25	48	29.67	29.00

Circle A. B.

B. D. +25° 597

1901		h	m	s	°	'	"	"
Jan. 22	U.	3	37	38.90	+25	27	11.4	10.4
26	L.			38.94			10.0	10.3
29	U.			38.91			9.9	10.4
Mean . . .		3	37	38.911	+25	27	10.43	10.37

B. D. +24° 537

1901		h	m	s	°	'	"	"
Jan. 18	U.	3	37	44.73	+24	45	50.8	51.4
19	L.			44.70			51.4	51.5
20	U.			44.73			51.1	51.7
Mean . . .		3	37	44.714	+24	45	51.10	51.53

B. D. +25° 599

1900		h	m	s	°	'	"	"
Dec. 16	U.	3	37	44.78	+26	3	48.4	49.2
18	L.			44.83			48.8	48.6
21	U.			44.77			49.1	49.1
Mean . . .		3	37	44.788	+26	3	48.77	48.97

B. D. +25° 600

1900		h	m	s	°	'	"	"
Dec. 10	U.	3	37	52.81	+25	24	36.7	38.4
13	U.			52.79			37.6	38.6
14	L.			52.76			37.7	38.8
Mean . . .		3	37	52.781	+25	24	37.33	38.60

B. D. +24° 546

1900		h	m	s	°	'	"	"
Dec. 29	U.	3	39	11.59	+24	31	31.1	31.8
1901								
Jan. 5	L.			11.65			31.6	31.0
8	L.			11.68			31.8	32.1
Mean . . .		3	39	11.629	+24	31	31.50	31.63

B. D. +26° 608

1901		h	m	s	°	'	"	"
Jan. 13	U.	3	39	12.07	+26	34	40.0	38.9
15	L.			12.06			40.1	39.8
16	U.			12.01			39.5	39.2
Mean . . .		3	39	12.041	+26	34	39.87	39.30

B. D. +24° 547

1901		h	m	s	°	'	"	"
Jan. 20	U.	3	39	15.20	+24	9	12.0	12.6
22	U.			15.19			12.8	12.0
28	U.			[15.35]			12.6	12.7
29	U.			15.22			13.4	12.7
Mean . . .		3	39	15.203	+24	9	12.70	12.50

B. D. +25° 607

1900		h	m	s	°	'	"	"
Dec. 21	U.	3	39	33.02	+25	17	49.7	51.0
1901								
Jan. 18	U.			32.93			50.0	51.0
19	L.			33.00			50.4	51.2
Mean . . .		3	39	32.978	+25	17	50.03	51.07

B. D. +24° 553

1900		h	m	s	°	'	"	"
Dec. 16	U.	3	39	56.90	+24	14	31.1	32.0
18	L.			56.89			30.8	32.6
19	U.			56.89			32.6	32.9
20	U.			56.93			32.2	32.7
Mean . . .		3	39	56.898	+24	14	31.68	32.55

B. D. +25° 611

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 10	U.	3	39	58.30	+25	45	49.6	48.7
13	U.			58.25			48.3	48.7
14	L.			58.33			49.5	48.8
Mean . . .		3	39	58.288	+25	45	49.13	48.73

B. D. +24° 562

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 8	U.	3	41	1.77	+24	12	37.8	36.5
1901								
Jan. 15	L.			1.79			35.7	36.2
16	U.			1.73			36.1	36.8
18	U.			1.70			35.8	36.3
Mean . . .		3	41	1.743	+24	12	36.35	36.45

B. D. +24° 568

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 21	U.	3	41	47.09	+25	4	38.2	39.0
29	U.			46.99			38.8	40.1
1901								
Jan. 5	L.			47.13			37.2	37.2
8	L.			47.12			37.9	38.6
Mean . . .		3	41	47.074	+25	4	38.02	38.72

B. D. +24° 571

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 18	L.	3	42	8.03	+24	40	47.3	47.5
19	U.			7.95			47.5	47.8
20	U.			8.02			46.8	48.1
1901								
Jan. 29	U.			8.03			46.6	48.3
Mean . . .		3	42	8.003	+24	40	47.05	47.92

B. D. +26° 617

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 10	U.	3	42	[16.79]	+26	16	49.8	48.6
13	U.			16.53			50.3	50.4
14	L.			16.55			50.9	49.5
16	U.			16.55			49.7	48.6
Mean . . .		3	42	16.538	+26	16	50.18	49.28

B. D. +25° 620

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 19	L.	3	42	41.13	+25	29	34.8	34.3
20	U.			41.10			34.1	34.4
22	U.			41.10			34.5	34.2
Mean . . .		3	42	41.104	+25	29	34.47	34.30

B. D. +23° 561

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 8	U.	3	43	24.12	+24	4	32.7	32.8
29	U.			24.04			32.9	34.9
1901								
Jan. 5	L.			24.13			31.9	33.2
8	L.			24.11			32.7	33.8
Mean . . .		3	43	24.092	+24	4	32.55	33.68

B. D. +23° 562

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 13	U.	3	43	28.63	+23	56	32.3	32.7
15	L.			28.66			33.4	33.6
16	U.			28.59			33.3	33.6
18	U.			28.64			32.4	33.6
Mean . . .		3	43	28.626	+23	56	32.85	33.38

B. D. +25° 624

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 16	U.	3	44	18.10	+25	16	40.1	39.5
18	L.			18.08			40.0	39.6
19	U.			18.16			40.1	39.5
20	U.			18.14			39.6	39.1
Mean . . .		3	44	18.116	+25	16	39.95	39.42

B. D. +24° 578

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 10	U.	3	44	29.99	+24	11	30.7	29.8
13	U.			29.94			30.8	30.5
14	L.			29.95			30.8	30.3
Mean . . .		3	44	29.954	+24	11	30.77	30.20

B. D. +23° 570

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Jan. 19	L.	3	44	55.49	+23	39	32.8	32.0
20	U.			55.52			32.3	33.3
22	U.			55.49			32.3	32.4
28	U.			55.56			32.3	33.3
Mean . . .		3	44	55.511	+23	39	32.42	32.75

B. D. +25° 627

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 29	U.	3	45	17.25	+26	3	8.7	7.9
1901								
Jan. 5	L.			17.33			7.2	6.4
8	L.			17.32			7.8	6.8
29	U.			17.29			7.8	5.9
Mean . . .		3	45	17.289	+26	3	7.88	6.75

B. D. +24° 583

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 8	U.	3	45	25.70	+24	51	40.1	39.4
21	U.			25.66			38.6	39.9
1901								
Jan. 13	U.			25.74			39.1	38.9
Mean . . .		3	45	25.700	+24	51	39.27	39.40

B. D. +25° 631

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 15	L.	3	45	55.54	+25	41	56.1	56.0
16	U.			55.51			56.7	55.8
18	U.			55.52			56.9	55.7
Mean . . .		3	45	55.518	+25	41	56.57	55.83

B. D. +24° 587

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 16	U.	3	46	12.57	+24	51	60.4	60.1
18	L.			12.46			59.8	59.9
19	U.			12.56			60.5	60.3
20	U.			12.47			60.7	60.0
Mean . . .		3	46	12.511	+24	52	0.35	0.08

B. D. +24° 589

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 10	U.	3	46	54.58	+24	25	3.8	4.2
13	U.			54.55			4.8	4.9
14	L.			54.44			3.5	4.7
Mean . . .		3	46	54.518	+24	25	4.03	4.60

B. D. +25° 637

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 19	L.	3	47	6.65	+25	14	14.0	12.2
20	U.			6.60			12.8	13.3
22	U.			6.61			13.8	13.1
29	U.			6.66			11.7	12.2
Mean . . .		3	47	6.626	+25	14	13.08	12.70

B. D. +25° 639

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 8	L.	3	47	28.23	+25	38	16.6	16.8
15	L.			28.12			16.8	16.8
16	U.			28.11			17.0	16.0
18	U.			28.16			15.6	16.4
Mean . . .		3	47	28.146	+25	38	16.50	16.50

B. D. +25° 641

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 8	U.	3	47	33.05	+25	23	9.1	9.2
21	U.			33.11			9.0	10.0
29	U.			33.05			9.8	9.2
1901								
Jan. 5	L.			33.07			9.2	8.5
Mean . . .		3	47	33.066	+25	23	9.28	9.22

B. D. +23° 584

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 16	U.	3	49	4.54	+23	39	45.8	45.9
18	L.			4.55			44.8	46.1
19	U.			4.61			44.5	45.7
20	U.			4.50			45.9	46.0
Mean . . .		3	49	4.546	+23	39	45.25	45.92

B. D. +24° 595

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 10	U.	3	49	7.57	+24	48	41.1	40.3
13	U.			7.53			41.3	41.4
14	L.			7.57			39.3	41.1
1901								
Jan. 20	U.			7.54			40.6	40.8
22	U.			7.56			40.7	40.1
Mean . . .		3	49	7.551	+24	48	40.60	40.74

B. D. +23° 586

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 21	U.	3	49	50.82	+23	32	8.9	9.2
29	U.			50.77			10.3	9.9
1901								
Jan. 5	L.			50.82			9.3	8.8
8	L.			50.89			9.5	. . .
Mean . . .		3	49	50.816	+23	32	9.50	9.30

B. D. +23° 589

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 13	U.	3	50	40.81	+23	18	14.5	13.8
15	L.			40.80			15.1	15.0
16	U.			40.73			14.1	14.9
18	U.			40.75			13.6	14.3
Mean . . .		3	50	40.768	+23	18	14.32	14.50

B. D. +24° 598

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 18	L.	3	51	11.04	+24	59	30.8	31.0
1901								
Jan. 19	L.			10.94			31.2	31.3
20	U.			10.98			30.7	31.0
22	U.			11.01			30.8	31.2
Mean . . .		3	51	10.984	+24	59	30.88	31.12

B. D. +24° 599

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 10	U.	3	51	27.56	+24	10	19.5	19.1
13	U.			27.53			20.1	19.9
16	U.			27.59			18.8	18.8
1901								
Jan. 29	U.			27.59			19.0	19.8
Mean . . .		3	51	27.568	+24	10	19.35	19.40

B. D. +23° 594

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 15	L.	3	52	22.70	+23	47	38.5	39.4
16	U.			22.63			39.3	39.5
18	U.			22.70			39.0	39.3
Mean . . .		3	52	22.671	+23	47	38.93	39.40

Circle A. B.

B. D. +23° 600

1900		h	m	s	°	′	″	″
Dec. 18	L.	3	53	6.41	+23	20	27.5	29.0
20	U.			6.41			28.4	28.6
21	U.			6.40			27.3	29.5
29	U.			6.35			28.4	29.2
Mean . . .		3	53	6.388	+23	20	27.90	29.08

B. D. +24° 602

1901		h	m	s	°	′	″	″
Jan. 5	L.	3	53	13.09	+24	55	47.6	....
8	L.			13.16			47.7	47.0
13	U.			13.07			47.3	47.1
22	U.			13.07			47.5	47.0
Mean . . .		3	53	13.089	+24	55	47.52	47.03

B. D. +24° 605

1900		h	m	s	°	′	″	″
Dec. 16	U.	3	53	54.45	+24	24	....	42.2
19	U.			54.49			42.2	43.1
1901								
Jan. 19	L.			54.47			42.6	42.9
20	U.			54.48			42.8	43.5
Mean . . .		3	53	54.468	+24	24	42.53	42.92

B. D. +22° 612

1900		h	m	s	°	′	″	″
Dec. 10	U.	3	53	57.27	+22	56	0.9	0.7
13	U.			57.25			1.0	1.7
14	L.			57.21			0.7	0.8
1901								
Jan. 28	U.			57.26			0.2	1.4
Mean . . .		3	53	57.243	+22	56	0.70	1.15

B. D. +22° 613

1900		h	m	s	°	′	″	″
Dec. 8	U.	3	54	11.41	+23	6	56.4	55.9
1901								
Jan. 15	L.			11.39			56.8	56.3
16	U.			11.37			55.7	55.7
Mean . . .		3	54	11.384	+23	6	56.30	55.97

B. D. +22° 615

1901		h	m	s	°	′	″	″
Jan. 5	L.	3	54	34.91	+22	32	29.6	28.1
8	L.			34.98			29.1	28.7
13	U.			34.95			28.4	28.1
29	U.			34.95			29.1	28.6
Mean . . .		3	54	34.939	+22	32	29.05	28.38

B. D. +22° 617^1

1900		h	m	s	°	′	″	″
Dec. 18	L.	3	55	0.36	+22	55	11.4	12.1
20	U.			0.40			11.5	11.2
21	U.			0.41			11.8	11.6
29	U.			0.34			11.3	12.2
Mean . . .		3	55	0.373	+22	55	11.50	11.78

B. D. +22° 617^2

1901		h	m	s	°	′	″	″
Jan. 18	U.	3	55	0.86	+22	55	6.8	7.0
19	L.			0.81			7.7	7.7
20	U.			0.84			[5.7]	7.1
22	U.			0.78			6.9	6.7
Mean . . .		3	55	0.818	+22	55	7.13	7.12

Circle A. B.

B. D. +23° 606

1900		h	m	s	°	′	″	″
Dec. 14	L.	3	57	48.82	+24	7	31.0	32.4
16	U.			48.93			31.5	32.0
18	L.			48.90			31.5	32.4
20	U.			48.88			32.1	32.5
Mean . . .		3	57	48.874	+24	7	31.52	32.32

B. D. +23° 609

1900		h	m	s	°	′	″	″
Dec. 8	U.	3	58	22.76	+23	49	50.3	50.7
10	U.			22.70			51.6	50.2
13	U.			22.68			49.7	50.7
1901								
Jan. 29	U.			22.78			50.2	50.8
Mean . . .		3	58	22.730	+23	49	50.45	50.60

B. D. +23° 611

1901		h	m	s	°	′	″	″
Jan. 18	U.	3	58	52.44	+23	14	4.0	5.8
19	L.			52.41			6.6	5.8
20	U.			52.37			5.3	6.4
22	U.			52.39			5.6	5.4
Mean . . .		3	58	52.398	+23	14	5.38	5.85

B. D. +23° 613

1901		h	m	s	°	′	″	″
Jan. 8	L.	3	59	17.14	+23	31	25.2	25.5
13	U.			17.09			25.6	26.3
15	L.			17.05			25.4	26.3
16	U.			17.03			25.1	26.2
Mean . . .		3	59	17.069	+23	31	25.32	26.08

B. D. +22° 629

1900		h	m	s	°	′	″	″
Dec. 20	U.	3	59	27.26	+22	53	44.7	43.9
21	U.			27.23			45.5	44.3
29	U.			27.20			45.8	45.4
1901								
Jan. 5	L.			27.24			45.2	44.4
Mean . . .		3	59	27.228	+22	53	45.30	44.50

B. D. +23° 617

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	0	39.53	+23	14	53.2	51.9
14	L.			39.57			51.9	52.4
16	U.			39.63			51.0	51.7
18	L.			39.66			51.3	52.2
Mean . . .		4	0	39.589	+23	14	51.85	52.05

B. D. +21° 593

1901		h	m	s	°	′	″	″
Jan. 15	L.	4	2	20.11	+21	45	16.0	16.6
16	U.			20.10			16.2	17.0
18	U.			20.16			16.6	[18.7]
19	L.			20.14			16.5	16.1
Mean . . .		4	2	20.119	+21	45	16.32	16.57

B. D. +23° 624

1900		h	m	s	°	′	″	″
Dec. 19	U.	4	2	52.49	+23	36	20.3	19.7
1901								
Jan. 8	L.			52.50			18.5	19.4
13	U.			52.47			18.9	19.6
20	U.			52.39			20.1	19.9
Mean . . .		4	2	52.458	+23	36	19.45	19.65

Circle A. B.

B. D. +22° 637^1

1900		h	m	s	°	′	″	″
Dec. 18	L.	4	2	56.27	+22	49	53.0	53.7
20	U.			56.32			53.8	53.1
29	U.			56.30			54.0	54.3
1901								
Jan. 5	L.			56.31			52.7	53.4
Mean . . .		4	2	56.292	+22	49	53.38	53.62

B. D. +22° 637^2

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	2	56.38	+22	49	59.6	60.6
14	L.			56.39			59.6	59.8
16	U.			56.42			58.5	58.4
1901								
Jan. 22	U.			56.38			58.9	58.9
28	U.			56.32			58.6	59.7
Mean . . .		4	2	56.375	+22	49	59.04	59.48

B. D. +23° 632

1901		h	m	s	°	′	″	″
Jan. 16	U.	4	4	17.43	+23	43	7.0	6.5
18	U.			17.50			6.0	7.0
19	L.			17.44			6.1	6.2
20	U.			17.46			6.2	5.8
Mean . . .		4	4	17.453	+23	43	6.32	6.38

B. D. +21° 601

1900		h	m	s	°	′	″	″
Dec. 20	U.	4	5	14.15	+21	37	27.3	26.8
21	U.			14.16			26.6	27.3
1901								
Jan. 5	L.			14.14			26.5	26.8
28	U.			14.09			26.7	27.7
Mean . . .		4	5	14.131	+21	37	26.78	27.15

B. D. +23° 642

1900		h	m	s	°	′	″	″
Dec. 19	U.	4	6	26.45	+23	19	1.3	1.6
1901								
Jan. 8	L.			26.54			0.0	0.4
13	U.			26.53			0.9	0.6
15	L.			26.44			0.9	1.4
16	U.			26.42			0 4	1.7
Mean . . .		4	6	26.469	+23	19	0.70	1.14

B. D. +23° 645

1901		h	m	s	°	′	″	″
Jan. 18	U.	4	6	48.06	+23	15	47.5	47.9
19	L.			48.01			48.6	49.4
20	U.			47.96			48.9	49.6
22	U.			48.00			49.1	48.7
Mean . . .		4	6	48.003	+23	15	48.52	48.90

B. D. +22° 649

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	6	55.38	+22	9	22.6	23.5
14	L.			55.41			23.4	23.2
16	U.			55.42			22.9	23.4
1901								
Jan. 28	U.			55.38			22.5	23.5
Mean . . .		4	6	55.393	+22	9	22.85	23.40

B. D. +22° 654

1900		h	m	s	°	′	″	″
Dec. 20	U.	4	8	2.30	+22	27	11.4	12.7
1901								
Jan. 15	L.			2.27			11.5	11.8
16	U.			2.24			12.0	11.9
Mean . . .		4	8	2.264	+22	27	11.63	12.13

Circle A. B.

B. D. +22° 657

1900		h	m	s	°	′	″	″
Dec. 19	U.	4	8	33.59	+22	11	56.2	54.8
21	U.			33.57			56.5	55.9
1901								
Jan. 18	U.			33.60			56.3	55.9
29	U.			33.62			56.2	55.5
Mean . . .		4	8	33.595	+22	11	56.30	55.52

B. D. +23° 650

1901		h	m	s	°	′	″	″
Jan. 19	L.	4	8	34.69	+23	7	25.1	25.2
20	U.			34.66			24.9	25.3
22	U.			34.70			25.2	24.8
Mean . . .		4	8	34.678	+23	7	25.07	25.10

B. D. +21° 610

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	9	17.88	+21	50	42.6	43.1
13	U.			17.82			41.8	41.9
14	L.			17.86			41.7	42.8
1901								
Jan. 28	U.			17.92			39.9	42.0
Mean . . .		4	9	17.866	+21	50	41.50	42.45

B. D. +22° 663

1901		h	m	s	°	′	″	″
Jan. 15	L.	4	10	3.49	+22	42	60.6	61.1
16	U.			3.49			60.1	60.9
18	U.			3.53			60.5	59.8
Mean . . .		4	10	3.498	+22	43	0.40	0.60

B. D. +21° 612

1900		h	m	s	°	′	″	″
Dec. 16	U.	4	10	37.74	+21	39	33.6	33.9
19	U.			37.80			33.5	32.5
20	U.			37.70			32.9	32.6
21	U.			37.69			32.8	33.2
Mean . . .		4	10	37.732	+21	39	33.20	33.05

B. D. +22° 665

1901		h	m	s	°	′	″	″
Jan. 19	L.	4	10	52.85	+23	5	27.7	28.1
20	U.			52.83			27.3	28.4
22	U.			52.88			27.6	26.8
Mean . . .		4	10	52.848	+23	5	27.53	27.77

B. D. +21° 617

1900		h	m	s	°	′	″	″
Dec. 13	U.	4	11	54.94	+22	6	28.9	29.1
1901								
Jan. 15	L.			55.00			29.5	29.2
16	U.			54.93			28.3	29.4
26	L.			55.00			28.2	29.5
Mean . . .		4	11	54.959	+22	6	28.72	29.30

B. D. +21° 618

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	12	28.02	+21	20	6.9	6.4
14	L.			28.02			4.8	6.0
16	U.			28.06			5.2	6.2
1901								
Jan. 29	U.			28.04			5.0	5.4
Mean . . .		4	12	28.031	+21	20	5.48	6.00

B. D. +20° 731

1900		h	m	s	°	′	″	″
Dec. 19	U.	4	13	7.15	+21	3	22.6	24.2
20	U.			7.11			23.4	24.3
21	U.			7.12			23.7	24.9
Mean . . .		4	13	7.127	+21	3	23.23	24.47

Circle A. B.

B. D. +20° 733

1901		h	m	s	°	′	″	″
Jan. 19	L.	4	13	32.35	+20	54	1.6	2.3
20	U.			32.39			2.3	2.9
22	U.			32.35			2.3	2.0
28	U.			32.34			1.4	3.2
Mean . . .		4	13	32.353	+20	54	1.90	2.60

B. D. +21° 623

1901		h	m	s	°	′	″	″
Jan. 15	L.	4	13	41.46	+21	31	55.4	54.1
16	U.			41.46			55.6	55.7
18	U.			41.45			55.5	54.8
Mean . . .		4	13	41.451	+21	31	55.50	54.87

B. D. +20° 740

1900		h	m	s	°	′	″	″
Dec. 14	L.	4	15	37.44	+20	48	9.4	9.5
16	U.			37.52			9.6	7.9
19	U.			37.46			8.9	8.3
20	U.			37.42			8.8	8.9
21	U.			37.43			8.3	8.6
Mean . . .		4	15	37.451	+20	48	9.00	8.64

B. D. +20° 741

1900		h	m	s	°	′	″	″
Dec. 29	U.	4	15	41.33	+20	56	59.4	60.2
1901								
Jan. 8	L.			41.41			59.1	59.9
13	U.			41.38			58.3	59.2
15	L.			41.34			59.5	59.7
Mean . . .		4	15	41.356	+20	56	59.08	59.75

B. D. +20° 744

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	16	29.76	+20	35	6.5	6.4
10	U.			29.74			6.7	6.2
13	U.			29.68			5.8	6.8
1901								
Jan. 16	U.			29.69			5.7	6.4
Mean . . .		4	16	29.718	+20	35	6.18	6.45

B. D. +21° 635

1900		h	m	s	°	′	″	″
Dec. 29	U.	4	17	27.13	+21	8	44.5	44.8
1901								
Jan. 5	L.			27.20			43.3	43.6
8	L.			27.25			44.1	44.7
19	L.			27.19			44.6	44.8
Mean . . .		4	17	27.180	+21	8	44.12	44.48

B. D. +20° 751

1900		h	m	s	°	′	″	″
Dec. 14	L.	4	17	38.74	+20	44	56.6	57.6
16	U.			38.77			56.7	57.1
18	L.			38.70			55.3	57.0
1901								
Jan. 28	U.			38.76			56.6	58.5
Mean . . .		4	17	38.734	+20	44	56.30	57.55

B. D. +21° 639

1900		h	m	s	°	′	″	″
Dec. 19	U.	4	18	6.11	+21	18	28.8	27.7
20	U.			6.00			28.0	27.6
21	U.			6.06			27.6	29.2
Mean . . .		4	18	6.057	+21	18	28.13	28.17

B. D. +21° 641

1900		h	m	s	°	′	″	″
Jan. 13	U.	4	18	18.35	+21	30	16.5	17.1
15	L.			18.25			18.0	17.5
16	U.			18.26			17.7	18.1
Mean . . .		4	18	18.281	+21	30	17.40	17.57

Circle A. B.

B. D. +21° 642

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	19	24.50	+22	3	55.9	54.5
10	U.			24.53			55.2	52.8
13	U.			24.43			54.8	53.7
1901								
Jan. 29	U.			24.49			53.8	54.3
Mean . . .		4	19	24.488	+22	3	54.92	53.82

B. D. +21° 643

1901		h	m	s	°	′	″	″
Jan. 18	U.	4	19	27.50	+21	58	15.6	16.5
19	L.			27.46			16.8	16.1
20	U.			27.47			16.5	17.1
28	U.			27.50			16.5	16.4
Mean . . .		4	19	27.478	+21	58	16.35	16.52

B. D. +20° 754

1900		h	m	s	°	′	″	″
Dec. 18	L.	4	19	53.54	+20	54	29.9	31.1
1901								
Jan. 5	L.			53.59			30.9	30.8
8	L.			53.61			31.2	31.8
13	U.			53.55			30.8	31.3
Mean . . .		4	19	53.560	+20	54	30.70	31.25

B. D. +21° 644

1900		h	m	s	°	′	″	″
Dec. 19	U.	4	20	22.87	+21	14	36.4	37.7
20	U.			22.72			37.5	37.0
21	U.			22.83			37.5	38.1
29	U.			22.78			37.4	38.2
Mean . . .		4	20	22.800	+21	14	37.20	37.75

B. D. +20° 756

1901		h	m	s	°	′	″	″
Jan. 18	U.	4	21	13.49	+20	45	58.4	59.7
19	L.			13.46			58.6	58.7
20	U.			13.47			58.2	58.7
Mean . . .		4	21	13.468	+20	45	58.40	59.03

B. D. +21° 647

1900		h	m	s	°	′	″	″
Dec. 8	U.	4	22	4.59	+21	23	50.0	49.0
10	U.			4.58			49.9	48.1
13	U.			4.53			48.7	49.0
1901								
Jan. 28	U.			4.56			48.8	50.2
Mean . . .		4	22	4.565	+21	23	49.35	49.08

B. D. +20° 760

1900		h	m	s	°	′	″	″
Dec. 18	L.	4	22	44.32	+20	36	35.4	35.8
19	U.			44.38			35.5	35.6
20	U.			44.30			36.5	35.1
21	U.			44.34			35.7	37.0
Mean . . .		4	22	44.331	+20	36	35.78	35.88

B. D. +19° 727

1900		h	m	s	°	′	″	″
Dec. 29	U.	4	22	45.52	+19	31	7.5	7.5
1901								
Jan. 5	L.			45.56			7.3	6.3
8	L.			[45.68]			7.2	8.5
13	U.			45.55			7.5	8.0
Mean . . .		4	22	45.538	+19	31	7.38	7.58

Circle A. B.

B. D. +20° 761

1901		h m s	° ′	″	″
Jan. 18	U.	4 22 48.91	+20 27	17.7	18.1
19	L.	48.88		18.4	18.9
20	U.	48.91		18.1	18.2
29	U.	48.90		18.9	18.2
Mean . . .		4 22 48.896	+20 27	18.28	18.35

B. D. +19° 731

1900		h m s	° ′	″	″
Dec. 10	U.	4 24 25.95	+19 37	21.4	19.4
13	U.	25.88		21.2	21.7
1901					
Jan. 8	L.	26.01		21.9	21.0
28	U.	25.89		20.7	21.4
Mean . . .		4 24 25.928	+19 37	21.30	20.88

B. D. +19° 733

1900		h m s	° ′	″	″
Dec. 8	U.	4 25 22.77	+19 55	2.9	2.9
18	L.	22.78		2.8	2.6
21	U.	22.81		2.8	3.3
29	U.	22.77		3.3	3.3
Mean . . .		4 25 22.778	+19 55	2.95	3.02

B. D. +20° 772

1901		h m s	° ′	″	″
Jan. 5	L.	4 25 45.64	+20 34	4.4	4.6
20	U.	45.63		3.8	4.9
22	U.	45.57		4.0	4.1
Mean . . .		4 25 45.608	+20 34	4.07	4.53

B. D. +21° 657

1901		h m s	° ′	″	″
Jan. 13	U.	4 26 12.02	+21 25	3.8	3.9
18	U.	12.02		2.3	3.8
19	L.	12.00		3.4	4.0
28	U.	11.94		3.5	5.0
Mean . . .		4 26 11.991	+21 25	3.25	4.18

B. D. +19° 735

1900		h m s	° ′	″	″
Dec. 10	U.	4 27 10.31	+19 8	11.7	9.1
13	U.	10.32		10.4	10.7
18	L.	10.31		10.2	10.7
1901					
Jan. 29	U.	10.34		10.6	10.1
Mean . . .		4 27 10.316	+19 8	10.72	10.15

B. D. +19° 736

1900		h m s	° ′	″	″
Dec. 21	U.	4 27 31.73	+19 36	6.9	6.2
29	U.	31.71		8.2	6.8
1901					
Jan. 5	L.	31.83		7.9	6.1
20	U.	31.75		8.3	7.2
Mean . . .		4 27 31.751	+19 36	7.82	6.58

B. D. +20° 778

1900		h m s	° ′	″	″
Dec. 8	U.	4 28 51.75	+20 53	44.9	43.8
1901					
Jan. 13	U.	51.79		43.8	44.4
15	L.	51.81		44.2	44.4
16	U.	51.79		43.3	44.9
Mean . . .		4 28 51.781	+20 53	44.05	44.38

Circle A. B.

B. D. +19° 740

1900		h m s	° ′	″	″
Dec. 10	U.	4 29 47.91	+19 45	47.6	47.9
13	U.	47.89		48.4	49.0
14	L.	47.96		48.2	48.7
Mean . . .		4 29 47.914	+19 45	48.07	48.53

B. D. +19° 742

1900		h m s	° ′	″	″
Dec. 16	U.	4 29 50.78	+19 40	30.7	30.2
18	L.	50.77		30.3	30.0
1901					
Jan. 5	L.	50.79		31.9	30.6
29	U.	50.80		30.4	30.3
Mean . . .		4 29 50.776	+19 40	30.82	30.28

B. D. +19° 744

1901		h m s	° ′	″	″
Jan. 13	U.	4 30 43.12	+19 33	19.3	18.4
15	L.	43.10		18.9	17.9
16	U.	43.07		18.5	16.8
18	U.	43.07		18.3	18.9
Mean . . .		4 30 43.086	+19 33	18.75	18.00

B. D. +19° 745

1901		h m s	° ′	″	″
Jan. 19	L.	4 30 51.39	+19 17	23.1	21.2
20	U.	51.31		22.2	21.3
28	U.	51.31		21.1	21.1
Mean . . .		4 30 51.331	+19 17	22.13	21.20

B. D. +20° 785

1900		h m s	° ′	″	″
Dec. 13	U.	4 32 21.79	+20 29	1.8	2.4
16	U.	21.84		2.4	1.3
18	L.	21.86		1.1	1.3
21	U.	21.83		1.2	1.7
1901					
Jan. 29	U.	21.78		1.2	1.7
Mean . . .		4 32 21.817	+20 29	1.54	1.68

B. D. +18° 666

1900		h m s	° ′	″	″
Dec. 29	U.	4 32 41.74	+18 31	60.8	60.2
1901					
Jan. 5	L.	41.79		60.5	58.3
13	U.	41.77		59.8	59.2
15	L.	41.74		61.0	58.8
16	U.	41.68		59.6	59.6
Mean . . .		4 32 41.737	+18 31	60.34	59.22

B. D. +19° 755

1900		h m s	° ′	″	″
Dec. 14	L.	4 35 42.44	+20 4	14.5	14.1
16	U.	42.50		13.9	14.5
18	L.	.....		12.8	13.0
19	U.	42.55		13.8	13.6
Mean . . .		4 35 42.491	+20 4	13.75	13.80

B. D. +19° 759

1900		h m s	° ′	″	″
Dec. 20	U.	4 35 51.27	+19 53	44.2	43.4
21	U.	51.33		44.0	44.5
29	U.	51.21		44.6	44.4
Mean . . .		4 35 51.270	+19 53	44.27	44.10

Circle A. B.

B. D. +18° 684

1901		h m s	° ′	″	″
Jan. 5	L.	4 37 1.40	+18 31	57.5	55.6
13	U.	1.40		56.9	55.5
15	L.	1.34		57.4	55.8
16	U.	1.33		56.5	56.6
Mean . . .		4 37 1.359	+18 31	57.08	55.88

B. D. +19° 774

1900		h m s	° ′	″	″
Dec. 8	U.	4 39 43.43	+19 8	38.9	37.2
10	U.	43.47		37.6	36.9
13	U.	43.43		38.0	37.7
Mean . . .		4 39 43.443	+19 8	38.17	37.27

B. D. +18° 717

1900		h m s	° ′	″	″
Dec. 14	L.	4 40 15.06	+18 37	4.2	2.6
16	U.	15.09		4.1	2.8
18	L.	.....		2.5	2.4
1901					
Jan. 29	U.	15.11		4.2	2.2
Mean . . .		4 40 15.081	+18 37	3.75	2.50

B. D. +18° 719

1901		h m s	° ′	″	″
Jan. 5	L.	4 40 26.44	+18 33	13.8	12.7
8	L.	26.47		14.7	13.4
13	U.	26.48		14.3	12.7
Mean . . .		4 40 26.452	+18 33	14.27	12.93

B. D. +19° 777

1900		h m s	° ′	″	″
Dec. 19	U.	4 40 44.13	+19 18	44.5	43.8
20	U.	44.11		44.4	43.0
21	U.	44.13		43.4	44.0
Mean . . .		4 40 44.123	+19 18	44.10	43.60

B. D. +18° 725

1901		h m s	° ′	″	″
Jan. 19	L.	4 41 3.95	+18 53	56.2	[52.5]
20	U.	3.97		56.6	57.5
28	U.	4.07		56.4	57.1
Mean . . .		4 41 3.991	+18 53	56.40	57.30

B. D. +18° 727

1901		h m s	° ′	″	″
Jan. 15	L.	4 41 17.80	+18 18	28.0	26.5
16	U.	17.81		28.8	27.2
18	U.	17.86		27.5	26.1
Mean . . .		4 41 17.818	+18 18	28.10	26.60

B. D. +19° 782

1900		h m s	° ′	″	″
Dec. 8	U.	4 41 51.31	+19 8	22.3	21.8
10	U.	51.37		23.0	21.6
13	U.	51.38		23.8	22.5
Mean . . .		4 41 51.353	+19 8	23.03	21.97

B. D. +17° 789

1900		h m s	° ′	″	″
Dec. 16	U.	4 42 47.53	+17 37	49.3	48.7
18	L.	.....		48.8	47.8
19	U.	47.57		50.0	49.1
20	U.	47.55		49.4	48.4
Mean . . .		4 42 47.550	+17 37	49.38	48.50

B. D. +18° 734

	Circle			A.	B.
1900		h m s	° ′	″	″
Dec. 21	U.	4 42 50.80	+18 32	34.8	33.7
1901					
Jan. 5	L.	50.82		34.7	32.5
8	L.	50.85		34.3	....
13	U.	50.79		33.8	32.1
Mean . . .		4 42 50.806	+18 32	34.40	32.77

B. D. +18° 738

1901		h m s	° ′	″	″
Jan. 15	L.	4 44 27.31	+19 1	10.0	10.1
16	U.	27.38		10.8	10.1
18	U.	27.30		10.3	9.7
19	L.	27.32		9.0	9.7
Mean . . .		4 44 27.319	+19 1	10.02	9.90

B. D. +17° 791

1900		h m s	° ′	″	″
Dec. 14	L.	4 44 32.11	+17 20	53.3	52.9
16	U.	32.10		53.4	52.9
18	L.	.....		52.1	52.7
19	U.	32.15		53.8	52.2
1901					
Jan. 29	U.	32.15		52.9	52.9
Mean . . .		4 44 32.123	+17 20	53.10	52.72

B. D. +18° 743

1900		h m s	° ′	″	″
Dec. 8	U.	4 45 31.41	+18 40	....	....
13	U.	31.41		10.8	10.0
1901					
Jan. 8	L.	31.40		10.9	10.1
13	U.	31.39		10.4	10.0
22	U.	31.36		11.1	9.5
Mean . . .		4 45 31.391	+18 40	10.80	9.90

B D. +17° 797

1900		h m s	° ′	″	″
Dec. 20	U.	4 46 3.31	+17 31	15.1	15.2
21	U.	3.30		16.9	16.2
29	U.	3.24		16.4	16.3
1901					
Jan. 5	L.	3.36		17.0	16.1
Mean . . .		4 46 3.298	+17 31	16.35	15.95

B. D. +17° 800

1901		h m s	° ′	″	″
Jan. 15	L.	4 46 15	+17 22	.....	.....
18	U.	This star was looked for			
19	L.	on these nights, but was never			
20	U.	bright enough for observation.			

B. D. +18° 747

1900		h m s	° ′	″	″
Dec. 14	L.	4 47 44.32	+18 54	25.7	26.2
16	U.	44.29		25.7	26.2
18	L.	.....		24.9	25.1
19	U.	44.31		25.3	25.5
1901					
Jan. 13	U.	44.32		26.0	25.3
Mean . . .		4 47 44.306	+18 54	25.52	25.66

B. D. +19° 811

1900		h m s	° ′	″	″
Dec. 8	U.	4 49 5.57	+19 19	24.2	24.4
10	U.	5.61		24.1	23.2
13	U.	5.57		24.0	23.7
1901					
Jan. 8	L.	5.63		24.0	23.7
Mean . . .		4 49 5.591	+19 19	24.08	23.75

B. D. +18° 754

	Circle			A.	B.
1901		h m s	° ′	″	″
Jan. 19	L.	4 49 19.94	+18 16	48.3	47.5
20	U.	19.96		48.9	48.0
28	U.	19.92		47.7	47.8
Mean . . .		4 49 19.934	+18 16	48.30	47.77

B. D. +17° 814

1901		h m s	° ′	″	″
Jan. 13	U.	4 50 41.30	+17 50	42.9	43.2
15	L.	41.30		41.9	42.9
16	U.	41.29		42.6	43.1
18	U.	41.27		44.3	43.9
Mean . . .		4 50 41.286	+17 50	42.92	43.28

B. D. +16° 671

1900		h m s	° ′	″	″
Dec. 16	U.	4 51 1.82	+16 34	36.9	36.2
19	U.	1.89		36.9	37.3
20	U.	1.87		36.5	36.3
21	U.	1.84		37.5	37.4
Mean . . .		4 51 1.855	+16 34	36.95	36.80

B. D. +16° 672

1900		h m s	° ′	″	″
Dec. 10	U.	4 51 35.77	+16 59	47.6	46.9
13	U.	35.72		47.9	47.6
14	L.	35.75		47.9	48.1
1901					
Jan. 8	L.	35.73		47.9	48.5
19	L.	35.72		48.7	47.1
Mean . . .		4 51 35.728	+16 59	48.00	47.64

B. D. +18° 765

1900		h m s	° ′	″	″
Dec. 8	U.	4 52 30.15	+18 50	19.4	17.8
29	U.	30.12		19.4	19.1
1901					
Jan. 5	L.	30.18		19.2	18.8
15	L.	30.17		19.5	17.9
Mean . . .		4 52 30.146	+18 50	19.38	18.40

B. D. +16° 679

1900		h m s	° ′	″	″
Dec. 10	U.	4 54 6.89	+16 40	41.7	40.2
13	U.	6.98		40.8	40.5
14	L.	6.95		40.3	41.2
16	U.	6.90		41.0	41.7
18	L.	6.87		41.1	40.0
Mean . . .		4 54 6.911	+16 40	40.98	40.72

B. D. +16° 685

1900		h m s	° ′	″	″
Dec. 14	L.	4 56 8.51	+16 41	12.7	12.4
18	L.	8.52		12.9	12.7
20	U.	8.49		12.9	11.2
21	U.	8.48		12.4	13.1
Mean . . .		4 56 8.492	+16 41	12.72	12.35

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1900		h m s	° ′	″	″
Feb. 13	U.	4 57 7.09	+21 26	51.2	....
14	U.	7.06		49.9	....
15	U.	7.12		48.9	....
18	U.	7.08		50.2	....
19	U.	7.02		49.9	....
20	U.	7.10		49.6	....
23	U.	7.03		49.5	....
25	U.	7.07		49.2	....
26	U.	7.07		50.4	....
27	U.	7.06		49.5	....
Mar. 3	U.	7.00		50.1	....
7	U.	7.07		50.4	....
Mean . . .		4 57 7.064	+21 26	49.90	.....

B. D. +16° 688

	Circle			A.	B.
1900		h m s	° ′	″	″
Dec. 20	U.	4 58 17.83	+16 59	5.5	3.6
21	U.	17.83		6.4	5.5
29	U.	17.78		5.8	5.7
1901					
Jan. 13	U.	17.83		6.1	5.0
Mean . . .		4 58 17.818	+16 59	5.95	4.95

B. D. +18° 777

1900		h m s	° ′	″	″
Dec. 14	L.	4 59 0.28	+18 6	54.0	53.0
16	U.	0.29		54.1	52.7
18	L.	0.33		53.7	52.2
1901					
Jan. 5	L.	0.33		53.3	51.9
19	L.	0.28		54.1	52.5
Mean . . .		4 59 0.288	+18 6	53.84	52.46

B. D. +17° 841

1900		h m s	° ′	″	″
Dec. 8	U.	5 0 28.78	+17 40	51.8	51.2
10	U.	28.71		[53.5]	50.2
13	U.	28.81		50.9	51.7
1901					
Jan. 13	U.	28.82		51.3	50.9
Mean . . .		5 0 28.780	+17 40	51.33	51.00

B. D. +16° 697

1900		h m s	° ′	″	″
Dec. 14	L.	5 1 14.67	+16 41	42.5	40.9
16	U.	14.75		41.4	39.4
18	L.	14.72		40.3	40.0
19	U.	14.84		41.6	39.7
1901					
Jan. 19	L.	14.76		41.3	39.6
20	U.	14.71		41.6	40.2
Mean . . .		5 1 14.733	+16 41	41.45	39.97

B. D. +16° 700

1900		h m s	° ′	″	″
Dec. 20	U.	5 2 11.39	+16 50	52.1	52.2
21	U.	11.33		53.3	52.6
29	U.	11.29		52.8	53.1
1901					
Jan. 5	L.	11.36		52.2	51.5
Mean . . .		5 2 11.338	+16 50	52.60	52.35

B. D. +15° 749

1901		h m s	° ′	″	″
Jan. 13	U.	5 2 21.68	+15 43	26.3	25.7
15	L.	21.67		26.4	25.9
16	U.	21.61		26.6	25.6
18	U.	21.62		26.3	25.5
Mean . . .		5 2 21.641	+15 43	26.40	25.68

B. D. +15° 752

1900		h m s	° ′	″	″
Dec. 8	U.	5 3 58.53	+15 28	10.0	10.9
10	U.	58.53		9.2	10.7
13	U.	58.50		11.4	10.2
18	L.	58.49		10.1	10.4
1901					
Jan. 19	L.	58.48		9.5	10.6
29	U.	58.51		11.9	10.1
Mean . . .		5 3 58.501	+15 28	10.35	10.48

B. D. +17° 862

1900		h m s	° ′	″	″
Dec. 14	L.	5 4 51.93	+17 18	52.8	52.0
16	U.	51.99		51.9	51.7
19	U.	52.01		52.2	51.8
20	U.	51.96		52.3	50.9
Mean . . .		5 4 51.968	+17 18	52.30	51.60

B. D. +16° 715

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 21	U.	5	5	4.41	+16	18	34.3	34.1
29	U.			4.37			33.2	33.9
1901								
Jan. 5	L.			4.42			34.2	33.7
13	U.			4.46			33.4	33.3
Mean . . .		5	5	4.411	+16	18	33.78	33.75

B. D. +15° 759

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 18	L.	5	5	56.92	+15	55	19.5	19.6
1901								
Jan. 15	L.			56.87			20.8	20.8
16	U.			56.92			20.9	20.7
29	U.			56.93			20.6	20.5
Mean . . .		5	5	56.902	+15	55	20.45	20.40

B. D. +16° 721

1901	Circle	h	m	s	°	′	A. ″	B. ″
Jan. 19	L.	5	6	6.43	+16	37	11.3	11.1
20	U.			6.38			12.2	11.3
28	U.			6.36			11.2	11.5
Mean . . .		5	6	6.384	+16	37	11.57	11.30

B. D. +17° 867

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 10	U.	5	6	24.14	+17	8	27.3	25.8
13	U.			24.06			25.9	26.0
1901								
Jan. 18	U.			24.08			26.0	25.8
Mean . . .		5	6	24.093	+17	8	26.40	25.87

B. D. +17° 869

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 29	U.	5	6	42.36	+17	5	32.7	32.1
1901								
Jan. 5	L.			42.39			32.3	31.3
13	U.			42.42			32.7	31.5
Mean . . .		5	6	42.384	+17	5	32.57	31.63

B. D. +16° 732

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 16	U.	5	7	28.40	+16	45	53.3	51.9
18	L.			28.45			54.1	52.3
20	U.			28.38			53.4	51.8
21	U.			28.42			54.8	52.9
1901								
Jan. 19	L.			28.43			53.7	52.4
Mean . . .		5	7	28.409	+16	45	53.86	52.26

B. D. +16° 735

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 10	U.	5	8	33.83	+16	33	42.1	41.0
13	U.			33.86			42.1	41.7
14	L.			33.88			43.6	43.5
1901								
Jan. 5	L.			33.81			43.5	42.7
15	L.			33.86			42.9	42.1
Mean . . .		5	8	33.838	+16	33	42.84	42.20

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1900	Circle	h	m	s	°	′	A. ″	B. ″
Feb. 14	U.	5	9	27.01	+22	10	12.8	....
15	U.			26.99			13.6	....
18	U.			26.98			12.3	....
19	U.			26.97			13.6	....
20	U.			27.01			13.8	....
23	U.			26.98			13.9	....
25	U.			27.04			13.4	....
26	U.			27.04			12.9	....
27	U.			26.98			13.6	....
Mar. 3	U.			26.99			13.5	....
5	U.			27.01			14.6	....
7	U.			27.00			13.6	....
Mean . . .		5	9	27.000	+22	10	13.47	.....

B. D. +15° 769

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 16	U.	5	9	42.10	+15	30	55.9	56.6
18	L.			42.16			56.1	56.9
21	U.			42.12			56.4	57.8
29	U.			42.10			56.8	56.8
Mean . . .		5	9	42.116	+15	30	56.30	57.02

B. D. +16° 741

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 10	U.	5	10	55.27	+16	54	31.5	30.4
13	U.			55.34			32.1	32.1
14	L.			55.30			32.7	33.2
1901								
Jan. 19	L.			55.27			32.6	32.1
20	U.			55.29			32.7	33.6
Mean . . .		5	10	55.287	+16	54	32.32	32.28

B. D. +16° 742

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 19	U.	5	11	20.09	+16	14	31.2	31.1
29	U.			19.97			31.2	31.3
1901								
Jan. 5	L.			20.06			31.8	31.6
15	L.			20.01			31.9	31.1
16	U.			19.99			31.1	31.0
Mean . . .		5	11	20.017	+16	14	31.44	31.22

B. D. +15° 779

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 18	L.	5	11	25.05	+15	9	13.6	14.2
20	U.			25.01			14.7	13.9
21	U.			24.98			14.6	14.6
1901								
Jan. 13	U.			25.05			14.8	15.1
Mean . . .		5	11	25.018	+15	9	14.42	14.45

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1900	Circle	h	m	s	°	′	A. ″	B. ″
Feb. 13	U.	5	13	16.08	+21	59	36.2	....
14	U.			16.10			35.7	....
15	U.			16.04			36.1	....
18	U.			16.07			36.3	....
19	U.			16.12			35.5	....
20	U.			16.08			35.6	....
23	U.			16.09			36.3	....
25	U.			16.06			35.3	....
26	U.			16.06			35.5	....
27	U.			16.06			35.6	....
Mar. 2	U.			16.08			35.4	....
3	U.			16.07			36.2	....
5	U.			16.04			35.9	....
7	U.			16.10			35.6	....
Mean . . .		5	13	16.075	+21	59	35.80	.....

B. D. +15° 787

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 8	U.	5	13	54.77	+15	40	55.2	54.4
10	U.			54.82			53.3	53.4
13	U.			54.74			53.4	53.7
21	U.			54.82			54.1	54.5
Mean . . .		5	13	54.788	+15	40	54.00	54.00

B. D. +15° 789

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 14	L.	5	14	18.49	+16	1	7.8	7.1
16	U.			18.51			7.2	6.2
18	L.			18.65			6.0	6.9
20	U.			18.57			5.7	5.7
Mean . . .		5	14	18.546	+16	1	6.68	6.48

B. D. +14° 881

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 19	U.	5	14	53.36	+14	57	27.4	26.8
29	U.			53.18			27.5	26.8
1901								
Jan. 5	L.			53.29			27.7	27.6
13	U.			53.29			27.6	28.2
Mean . . .		5	14	53.276	+14	57	27.55	27.35

B. D. +15° 790

1901	Circle	h	m	s	°	′	A. ″	B. ″
Jan. 15	L.	5	14	59.29	+15	32	7.8	6.7
16	U.			59.27			7.6	7.6
18	U.			59.29			8.6	7.1
Mean . . .		5	14	59.278	+15	32	8.00	7.13

B. D. +15° 795

1901	Circle	h	m	s	°	′	A. ″	B. ″
Jan. 19	L.	5	15	54.85	+15	44	56.9	56.3
20	U.			54.78			56.1	57.6
28	U.			54.78			55.3	57.0
29	U.			54.86			55.9	57.0
Mean . . .		5	15	54.813	+15	44	56.05	56.98

B. D. +15° 797

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 10	U.	5	16	14.81	+15	59	39.3	38.1
13	U.			14.84			37.8	37.7
14	L.			14.83			38.3	38.5
21	U.			14.88			38.2	37.5
Mean . . .		5	16	14.836	+15	59	38.40	37.95

B. D. +15° 799

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 8	U.	5	16	38.25	+16	1	35.4	33.9
16	U.			38.25			[32.2]	32.8
18	L.			38.24			34.0	33.2
20	U.			38.16			34.7	33.3
Mean . . .		5	16	38.221	+16	1	34.70	33.30

B. D. +15° 805

1900	Circle	h	m	s	°	′	A. ″	B. ″
Dec. 19	U.	5	17	46.76	+15	56	44.3	44.4
29	U.			46.65			44.5	44.4
1901								
Jan. 5	L.			46.66			46.2	44.4
13	U.			46.71			45.1	44.6
15	L.			46.64			44.6	43.8
Mean . . .		5	17	46.677	+15	56	44.94	44.32

Lalande 10107

1900	Circle	h	m	s	°	′	A. ″	B. ″
Feb. 13	U.	5	19	13.79	+20	29	33.1	....
14	U.			13.67			32.7	....
15	U.			13.76			33.4	....
18	U.			13.82			33.3	....
19	U.			13.74			33.5	....
20	U.			13.73			33.1	....
23	U.			13.69			32.6	....
25	U.			13.67			33.1	....
Mean . . .		5	19	13.734	+20	29	33.10	.....

B. D. +15° 809

1901	Circle	h	m	s	°	′	A. ″	B. ″
Jan. 15	L.	5	19	22.28	+15	16	14.6	14.7
16	U.			22.15			14.5	14.9
18	U.			22.28			15.9	15.1
19	L.			22.28			14.9	15.2
Mean . . .		5	19	22.239	+15	16	14.98	14.98

Circle A. B.

B. D. +15° 810

1900		h	m	s	°	′	″	″
Dec. 10	U.	5	19	54.07	+15	29	27.2	27.6
13	U.			54.03			28.1	27.7
14	L.			54.05			27.8	28.5
21	U.			54.06			28.3	27.9
Mean . . .		5	19	54.048	+15	29	27.85	27.92

B. D. +15° 813

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	20	10.68	+15	21	54.4	53.6
16	U.			10.70			51.9	51.5
18	L.			10.76			53.1	51.5
20	U.			10.74			53.7	52.2
Mean . . .		5	20	10.716	+15	21	53.28	52.20

B. D. +15° 814

1900		h	m	s	°	′	″	″
Dec. 29	U.	5	20	18.44	+15	34	59.9	60.0
1901								
Jan. 5	L.			18.54			58.5	59.7
13	U.			18.54			59.5	59.2
20	U.			18.48			59.1	60.4
Mean . . .		5	20	18.496	+15	34	59.25	59.82

B. D. +15° 822

1900		h	m	s	°	′	″	″
Dec. 19	U.	5	21	30.80	+15	10	18.0	18.1
1901								
Jan. 15	L.			30.75			17.5	17.7
16	U.			30.73			17.1	18.4
18	U.			30.73			17.7	17.7
Mean . . .		5	21	30.748	+15	10	17.58	17.98

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1900		h	m	s	°	′	″	″
Feb. 23	U.	5	21	37.70	+21	51	5.3	...
25	U.			37.73			6.2	...
26	U.			37.62			5.7	...
27	U.			37.75			5.6	...
Mar. 2	U.			37.72			5.6	...
3	U.			37.71			6.1	...
5	U.			37.74			5.0	...
7	U.			37.68			5.8	...
Mean . . .		5	21	37.706	+21	51	5.66	....

W. B.₂ V. 541

1900		h	m	s	°	′	″	″
Feb. 13	U.	5	21	51.37	+23	12	33.5	....
14	U.			51.44			32.8	....
18	U.			51.46			33.2	....
19	U.			51.42			33.3	....
20	U.			51.43			34.5	....
Mean . . .		5	21	51.424	+23	12	33.46	.....

B. D. +14° 914

1901		h	m	s	°	′	″	″
Jan. 19	L.	5	21	59.58	+14	3	3.0	2.7
20	U.			59.55			3.8	3.5
28	U.			59.51			2.7	3.8
29	U.			59.58			2.2	2.2
Mean . . .		5	21	59.551	+14	3	2.92	3.05

B. D. +15° 826

1900		h	m	s	°	′	″	″
Dec. 10	U.	5	22	0.79	+15	47	23.4	22.3
13	U.			0.80			22.2	23.3
14	L.			0.74			23.2	23.4
16	U.			0.82			21.2	22.2
Mean . . .		5	22	0.783	+15	47	22.50	22.80

Circle A. B.

B. D. +14° 917

1900		h	m	s	°	′	″	″
Dec. 18	L.	5	22	9.78	+14	55	49.3	50.0
20	U.			9.77			49.9	50.3
21	U.			9.76			50.5	50.2
29	U.			9.71			50.5	50.3
Mean . . .		5	22	9.751	+14	55	50.05	50.20

W. B.₂ V. 618

1900		h	m	s	°	′	″	″
Feb. 13	U.	5	24	8.82	+21	18	5.7	...
14	U.			8.81			5.3	...
19	U.			8.86			5.6	...
20	U.			8.77			5.7	...
23	U.			8.82			5.9	...
25	U.			8.83			6.0	...
Mean . . .		5	24	8.818	+21	18	5.70	....

B. D. +15° 837

1900		h	m	s	°	′	″	″
Dec. 10	U.	5	24	42.70	+15	16	59.3	58.6
13	U.			42.68			57.8	58.8
14	L.			42.75			59.0	59.9
16	U.			42.71			59.4	59.6
1901								
Jan. 15	L.			42.73			59.8	59.2
Mean . . .		5	24	42.707	+15	16	59.06	59.22

B. D. +14° 933

1900		h	m	s	°	′	″	″
Dec. 19	U.	5	25	.....	+14	34	6.4	7.3
29	U.			48.59			7.3	7.2
1901								
Jan. 5	L.			48.68			7.1	6.8
13	U.			48.69			7.9	8.0
Mean . . .		5	25	48.648	+14	34	7.18	7.32

B. D. +14° 934

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	25	53.16	+14	51	12.9	12.8
18	L.			53.22			10.6	11.3
20	U.			53.24			11.7	11.7
21	U.			53.21			11.7	12.9
Mean . . .		5	25	53.203	+14	51	11.72	12.18

B. D. +14° 939

1901		h	m	s	°	′	″	″
Jan. 15	L.	5	27	4.10	+14	8	54.6	55.1
16	U.			4.09			56.0	55.5
18	U.			4.11			55.3	55.5
Mean . . .		5	27	4.094	+14	8	55.30	55.37

B. D. +15° 851

1900		h	m	s	°	′	″	″
Dec. 10	U.	5	27	23.83	+15	52	33.5	30.1
13	U.			23.87			32.5	31.8
14	L.			23.94			32.8	33.0
Mean . . .		5	27	23.874	+15	52	32.93	31.63

Mayer 219

1900		h	m	s	°	′	″	″
Feb. 13	U.	5	27	42.15	+20	24	11.3	....
14	U.			42.14			11.7	....
15	U.			42.17			11.8	....
18	U.			42.17			12.0	....
19	U.			42.19			11.5	....
Mar. 3	U.			42.16			11.7	....
5	U.			42.14			11.5	....
Mean . . .		5	27	42.160	+20	24	11.64	.....

Circle A. B.

B. D. +14° 947

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	28	13.32	+14	14	9.3	8.2
16	U.			13.22			9.1	8.8
18	L.			13.26			9.2	9.4
Mean . . .		5	28	13.261	+14	14	9.20	8.80

B. D. +15° 856

1900		h	m	s	°	′	″	″
Dec. 19	U.	5	28	.....	+15	30	54.6	55.5
1901								
Jan. 5	L.			16.18			55.4	55.3
13	U.			16.22			55.1	55.7
29	U.			16.19			54.8	54.8
Mean . . .		5	28	16.191	+15	30	54.98	55.32

B. D. +14° 948

1900		h	m	s	°	′	″	″
Dec. 20	U.	5	28	19.54	+14	25	15.8	15.0
21	U.			19.55			15.5	14.8
29	U.			19.48			14.9	15.6
Mean . . .		5	28	19.523	+14	25	15.40	15.13

B. D. +13° 922

1901		h	m	s	°	′	″	″
Jan. 19	L.	5	28	50.60	+13	56	7.4	6.5
20	U.			50.59			6.1	6.5
28	U.			50.56			5.5	6.0
Mean . . .		5	28	50.578	+13	56	6.33	6.33

Rümker 1471

1900		h	m	s	°	′	″	″
Feb. 20	U.	5	28	53.83	+22	30	4.2	...
23	U.			53.83			4.7	..
25	U.			53.79			4.0	...
26	U.			53.84			5.4	...
27	U.			53.84			4.1	...
Mar. 2	U.			53.75			4.2	...
7	U.			53.83			5.3	...
Mean . . .		5	28	53.816	+22	30	4.56	....

B. D. +13° 927

1900		h	m	s	°	′	″	″
Dec. 10	U.	5	29	27.14	+13	20	44.9	45.9
13	U.			27.13			44.0	46.3
14	L.			27.22			44.7	46.4
Mean . . .		5	29	27.158	+13	20	44.53	46.20

B. D. +13° 930

1901		h	m	s	°	′	″	″
Jan. 15	L.	5	29	41.61	+13	13	11.1	10.0
16	U.			41.57			10.7	10.9
18	U.			41.65			12.1	10.8
Mean . . .		5	29	41.604	+13	13	11.30	10.57

B. D. +14° 958

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	30	45.93	+14	35	38.0	39.1
16	U.			46.05			38.3	38.3
18	L.			46.06			37.8	38.2
20	U.			46.05			38.8	38.0
1901								
Jan. 19	L.			46.02			38.6	38.4
Mean . . .		5	30	46.015	+14	35	38.30	38.40

Circle A. B.

B. D. +14° 959

1900		h	m	s	°	′	″	″
Dec. 21	U.	5	31	0.62	+14	9	50.2	50.1
29	U.			0.56			50.7	49.9
1901								
Jan. 5	L.			0.70			49.5	50.7
13	U.			0.68			49.1	50.1
Mean . . .		5	31	0.636	+14	9	49.88	50.20

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1900		h	m	s	°	′	″	″
Feb. 13	U.	5	31	40.08	+21	4	52.2	....
14	U.			40.06			53.4	....
15	U.			40.09			54.1	....
18	U.			40.11			54.0	....
19	U.			40.12			53.7	....
20	U.			40.06			53.8	....
23	U.			40.13			54.3	....
25	U.			40.04			54.1	....
26	U.			40.13			54.2	....
Mar. 2	U.			40.07			53.8	....
3	U.			40.08			53.1	....
5	U.			40.08			53.3	....
7	U.			40.09			53.0	....
Mean . . .		5	31	40.088	+21	4	53.62	.....

B. D. +14° 973

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	33	25.88	+14	29	57.5	57.4
10	U.			25.93			56.7	55.7
13	U.			25.83			56.7	57.6
18	L.			25.94			55.9	57.7
Mean . . .		5	33	25.891	+14	29	56.70	57.10

B. D. +14° 978

1900		h	m	s	°	′	″	″
Dec. 14	L.	5	34	5.57	+14	44	37.6	38.1
16	U.			5.56			36.9	37.4
19	U.			.....			36.6	37.1
20	U.			5.55			36.7	36.9
1901								
Jan. 13	U.			5.57			37.4	37.4
Mean . . .		5	34	5.558	+14	44	37.04	37.38

B. D. +13° 954

1900		h	m	s	°	′	″	″
Dec. 18	L.	5	35	50.77	+13	5	48.5	49.0
21	U.			50.71			48.6	49.2
29	U.			50.65			49.2	49.1
1901								
Jan. 5	L.			50.71			49.5	48.3
Mean . . .		5	35	50.702	+13	5	48.95	48.90

Anonymous

1900		h	m	s	°	′	″	″
Feb. 18	U.	5	35	57.10	+22	30	4.6	...

Piazzi V. 184

1900		h	m	s	°	′	″	″
Feb. 13	U.	5	36	1.25	+22	36	35.9	....
14	U.			1.20			35.7	....
15	U.			1.26			36.9	....
19	U.			1.23			35.7	....
Mean . . .		5	36	1.235	+22	36	36.05	.....

B. D. +13° 957

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	36	31.21	+13	32	31.6	30.9
10	U.			31.20			31.7	31.5
13	U.			31.16			31.3	31.4
1901								
Jan. 19	L.			31.23			31.4	31.4
Mean . . .		5	36	31.196	+13	32	31.50	31.30

Circle A. B.

Anonymous

1900		h	m	s	°	′	″	″
Feb. 20	U.	5	36	49.31	+21	20	24.1	.....

Piazzi V. 192

1900		h	m	s	°	′	″	″
Feb. 15	U.	5	37	15.13	+23	9	25.5	....
Mar. 2	U.			15.16			26.0	....
3	U.			15.16			25.0	....
5	U.			15.13			25.3	....
7	U.			15.19			25.4	....
Mean . . .		5	37	15.154	+23	9	25.44	.....

B. D. +14° 991

1900		h	m	s	°	′	″	″
Dec. 14	L.	5	37	17.53	+14	7	50.5	50.6
16	U.			17.51			50.1	49.4
19	U.			.....			49.3	49.9
1901								
Jan. 13	U.			17.60			51.0	50.2
Mean . . .		5	37	17.541	+14	7	50.22	50.02

W. B.$_2$ V. 1127

1900		h	m	s	°	′	″	″
Feb. 23	U.	5	37	22.50	+21	22	8.6	...
25	U.			22.52			9.3	...
26	U.			22.59			8.5	...
27	U.			22.53			8.4	...
Mean . . .		5	37	22.535	+21	22	8.70	....

B. D. +13° 964

1900		h	m	s	°	′	″	″
Dec. 20	U.	5	37	23.61	+13	5	48.8	47.3
1901								
Jan. 15	L.			23.59			49.0	49.2
16	U.			23.54			48.3	49.2
18	U.			23.62			49.6	49.0
Mean . . .		5	37	23.586	+13	5	48.92	48.68

B. D. +14° 998

1900		h	m	s	°	′	″	″
Dec. 21	U.	5	37	50.15	+14	21	52.6	51.9
29	U.			50.07			51.8	51.4
1901								
Jan. 5	L.			50.16			51.9	....
29	U.			50.16			51.1	51.2
Mean . . .		5	37	50.131	+14	21	51.85	51.50

B. D. +12° 880

1901		h	m	s	°	′	″	″
Jan. 19	L.	5	38	28.30	+12	40	21.9	22.9
20	U.			28.28			21.9	23.2
28	U.			28.24			22.0	23.2
Mean . . .		5	38	28.268	+12	40	21.93	23.10

B. D. +12° 882

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	39	4.73	+12	22	20.5	19.6
10	U.			4.77			19.9	20.0
13	U.			4.76			21.0	20.1
1901								
Jan. 15	L.			4.73			21.1	20.1
Mean . . .		5	39	4.743	+12	22	20.62	19.95

B. D. +12° 884

1900		h	m	s	°	′	″	″
Dec. 19	U.	5	39	.....	+12	50	43.1	43.5
21	U.			23.68			44.3	44.8
29	U.			23.66			43.4	44.3
1901								
Jan. 5	L.			23.61			44.3	43.6
16	U.			23.67			43.4	44.6
Mean . . .		5	39	23.651	+12	50	43.70	44.16

Circle A. B.

B. D. +13° 971

1900		h	m	s	°	′	″	″
Dec. 14	L.	5	39	23.83	+13	31	60.5	60.5
16	U.			23.78			60.0	59.6
18	L.			23.77			59.5	61.0
20	U.			23.78			59.6	59.7
Mean . . .		5	39	23.782	+13	31	59.90	60.20

Lalande 10891

1900		h	m	s	°	′	″	″
Feb. 13	U.	5	41	12.65	+22	29	28.5	....
14	U.			12.68			27.8	....
15	U.			12.68			28.7	....
18	U.			12.67			28.5	....
19	U.			12.65			28.3	....
Mar. 3	U.			12.66			28.9	....
5	U.			12.65			28.8	....
Mean . . .		5	41	12.663	+22	29	28.50	.....

B. D. +12° 896

1900		h	m	s	°	′	″	″
Dec. 19	U.	5	41	.....	+12	18	8.5	....
29	U.			35.09			8.3	9.4
1901								
Jan. 5	L.			35.20			8.4	8.5
15	L.			35.14			8.2	9.0
16	U.			35.13			8.8	9.1
Mean . . .		5	41	35.132	+12	18	8.44	9.00

Lalande 10913

1900		h	m	s	°	′	″	″
Feb. 20	U.	5	41	40.26	+20	54	15.6	....
23	U.			40.32			15.8	....
25	U.			40.30			16.0	....
26	U.			40.34			15.8	....
27	U.			40.30			16.2	....
Mar. 2	U.			40.37			15.8	....
Mean . . .		5	41	40.315	+20	54	15.87	.....

B. D. +12° 899

1900		h	m	s	°	′	″	″
Dec. 16	U.	5	41	51.89	+12	13	15.7	16.2
18	L.			51.87			15.4	15.1
20	U.			51.88			14.8	15.1
21	U.			51.94			15.4	15.5
1901								
Jan. 19	L.			51.95			15.2	15.5
Mean . . .		5	41	51.899	+12	13	15.30	15.48

B. D. +13° 979

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	42	2.66	+13	51	48.3	47.9
10	U.			2.66			47.6	47.6
13	U.			2.57			47.2	47.4
1901								
Jan. 18	U.			2.63			49.4	48.2
20	U.			2.61			47.6	47.6
Mean . . .		5	42	2.626	+13	51	48.02	47.74

B. D. +12° 910

1901		h	m	s	°	′	″	″
Jan. 5	L.	5	43	36.27	+12	7	5.5	6.1
13	U.			36.26			5.7	6.0
15	L.			36.26			4.5	4.9
16	U.			36.21			5.4	6.5
Mean . . .		5	43	36 242	+12	7	5.28	5.88

B. D. +13° 988

1900		h	m	s	°	′	″	″
Dec. 20	U.	5	43	45.34	+13	53	22.9	22.9
21	U.			45.42			23.3	23.3
29	U.			45.32			22.9	23.5
1901								
Jan. 19	L.			45.42			23.5	22.8
29	U.			45.43			21.8	22.3
Mean . . .		5	43	45.383	+13	53	22.88	22.96

B. D. +12° 912

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 14	L.	5	43	55.85	+12	37	11.3	11.1
16	U.			55.92			11.8	11.4
18	L.			55.86			11.5	11.5
19	U.			.....			11.1	11.6
1901								
Jan. 20	U.			55.84			11.5	12.0
Mean . . .		5	43	55.859	+12	37	11.44	11.52

Lalande 11062

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Feb. 13	U.	5	45	45.77	+23	21	22.0	....
14	U.			45.74			21.8	....
15	U.			45.81			22.2	....
18	U.			45.75			21.6	....
19	U.			45.78			22.2	....
Mar. 3	U.			45.81			20.6	....
5	U.			45.78			21.4	....
Mean . . .		5	45	45.777	+23	21	21.69	.....

B. D. +12° 925

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 10	U.	5	46	37.58	+12	51	10.8	9.7
13	U.			37.53			10.4	11.4
14	L.			37.65			10.7	10.9
18	L.			37.66			9.4	10.5
Mean . . .		5	46	37.596	+12	51	10.32	10.62

B. D. +12° 927

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 20	U.	5	46	50.17	+12	18	20.8	21.5
21	U.			50.24			21.9	22.8
29	U.			50.16			22.3	22.5
Mean . . .		5	46	50.190	+12	18	21.67	22.27

Anonymous

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Feb. 25	U.	5	47	11.19	+22	2	14.7	....

B. D. +22° 1080

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Feb. 20	U.	5	47	18.15	+22	3	2.6	...
23	U.			18.16			2.2	...
26	U.			18.21			3.0	...
27	U.			18.16			3.0	...
Mar. 2	U.			18.20			3.1	...
Mean . . .		5	47	18.176	+22	3	2.78	....

B. D. +11° 960

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 19	U.	5	47	.....	+11	47	38.6	38.8
1901								
Jan. 5	L.			37.36			38.7	38.6
13	U.			37.37			39.3	39.2
15	L.			37.37			37.9	39.1
Mean . . .		5	47	37.355	+11	47	38.62	38.92

B. D. +12° 937

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 16	U.	5	48	22.22	+12	24	19.8	20.1
18	U.			22.13			20.6	20.6
19	L.			22.18			19.3	20.2
Mean . . .		5	48	22.171	+12	24	19.90	20.30

χ^1 Orionis

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Feb. 13	U.	5	48	27.61	+20	15	26.3	....
14	U.			27.63			26.9	....
15	U.			27.61			28.0	....
18	U.			27.60			27.4	....
19	U.			27.66			27.0	....
Mar. 5	U.			27.68			27.0	....
7	U.			27.68			27.1	....
Mean . . .		5	48	27.639	+20	15	27.10	.....

B. D. +12° 941

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 20	U.	5	48	29.04	+12	2	35.7	35.5
28	U.			29.06			35.3	35.9
29	U.			29.10			34.9	35.4
Mean . . .		5	48	29.067	+12	2	35.30	35.60

B. D. +11° 964

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 8	U.	5	48	56.95	+11	44	40.8	39.8
10	U.			56.98			39.7	41.0
13	U.			56.95			41.4	42.4
Mean . . .		5	48	56.960	+11	44	40.63	41.07

B. D. +11° 965

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 14	L.	5	49	2.03	+11	27	59.9	60.4
16	U.			1.95			59.9	60.3
18	L.			1.91			59.1	59.5
Mean . . .		5	49	1.952	+11	27	59.63	60.07

B. D. +12° 946

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 20	U.	5	49	37.97	+12	52	37.9	37.9
21	U.			37.97			38.8	38.8
29	U.			37.94			38.5	38.8
Mean . . .		5	49	37.960	+12	52	38.40	38.50

B. D. +12° 950

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 19	U.	5	50	....	+12	59	4.1	5.0
1901								
Jan. 5	L.			0.76			5.0	4.7
13	U.			0.76			4.8	5.1
15	L.			0.75			4.2	5.0
Mean . . .		5	50	0.745	+12	59	4.52	4.95

B. D. +11° 970

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 16	U.	5	50	2.96	+11	47	32.3	33.3
18	U.			2.96			33.9	32.7
19	L.			2.96			32.4	33.0
20	U.			2.91			33.2	33.1
Mean . . .		5	50	2.943	+11	47	32.95	33.02

B. D. +12° 963

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 8	U.	5	52	27.37	+12	52	14.3	14.1
10	U.			27.38			14.2	14.2
13	U.			27.35			14.9	15.7
29	U.			27.33			14.8	14.1
Mean . . .		5	52	27.358	+12	52	14.55	14.52

B. D. +12° 965

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 14	L.	5	52	44.25	+12	58	40.3	41.1
16	U.			44.18			40.4	40.4
18	L.			44.24			38.6	40.5
20	U.			44.21			40.2	40.2
Mean . . .		5	52	44.212	+12	58	39.88	40.55

Anonymous

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Feb. 15	U.	5	52	48.92	+20	39	17.9	....

W. B.$_2$ V. 1652

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Feb. 13	U.	5	52	57.69	+20	40	1.6	...
14	U.			57.69			0.8	...
18	U.			57.71			1.6	...
19	U.			57.73			0.8	...
Mean . . .		5	52	57.705	+20	40	1.20	....

B. D. +12° 968

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 19	U.	5	53	.....	+12	47	55.2	55.7
1901								
Jan. 5	L.			15.68			55.3	55.4
13	U.			15.67			55.3	55.4
15	L.			15.65			54.7	55.7
Mean . . .		5	53	15.655	+12	47	55.12	55.55

Lalande 11293

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Mar. 2	U.	5	53	39.41	+21	35	47.9	....
3	U.			39.30			47.7	....
5	U.			39.36			47.3	....
7	U.			39.42			47.1	....
Mean . . .		5	53	39.372	+21	35	47.50	.....

B. D. +11° 986

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 16	U.	5	53	45.46	+11	45	16.7	18.6
18	U.			45.45			17.3	17.2
19	L.			45.47			16.6	17.2
Mean . . .		5	53	45.454	+11	45	16.87	17.67

B. D. +12° 975

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 20	U.	5	53	50.88	+12	27	46.4	47.3
28	U.			50.87			46.1	47.9
29	U.			50.88			46.0	47.3
Mean . . .		5	53	50.877	+12	27	46.17	47.50

140 Tauri

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Feb. 15	U.	5	54	24.54	+22	53	38.2	....
20	U.			24.47			37.4	....
23	U.			24.51			37.9	....
25	U.			24.52			38.1	....
26	U.			24.59			37.7	....
27	U.			24.55			37.6	....
Mean . . .		5	54	24.530	+22	53	37.82	.....

B. D. +12° 980

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 14	L.	5	54	40.01	+12	36	21.3	21.0
16	U.			39.97			20.5	20.5
18	L.			40.01			18.8	20.0
20	U.			40.00			19.9	19.9
Mean . . .		5	54	39.989	+12	36	20.12	20.35

B. D. +11° 995

	Circle	h	m	s	°	′	A. ″	B. ″
1900								
Dec. 8	U.	5	54	59.19	+11	59	2.2	2.0
10	U.			59.07			2.4	3.3
13	U.			59.06			3.4	2.4
21	U.			59.14			2.2	3.0
Mean . . .		5	54	59.115	+11	59	2.55	2.68

B. D. +11° 1002

	Circle	h	m	s	°	′	A. ″	B. ″
1901								
Jan. 16	U.	5	56	29.92	+11	39	19.4	19.7
18	U.			29.92			19.2	20.3
19	L.			29.92			18.9	19.3
20	U.			29.88			19.8	19.1
Mean . . .		5	56	29.906	+11	39	19.32	19.60

Circle A. B.

B. D. +12° 994

1900		h	m	s	°	′	″	″
Dec. 14	L.	5	57	1.52	+12	40	15.5	16.6
16	U.			1.50			15.8	15.5
18	L.			1.56			15.0	15.1
1901								
Jan. 28	U.			1.50			14.8	16.0
Mean . . .		5	57	1.512	+12	40	15.28	15.80

B. D. +11° 1005

1900		h	m	s	°	′	″	″
Dec. 20	U.	5	57	9.33	+11	5	33.2	32.7
21	U.			9.35			33.8	33.6
29	U.			9.21			34.2	33.8
Mean . . .		5	57	9.297	+11	5	33.73	33.37

B. D. +11° 1007

1900		h	m	s	°	′	″	″
Dec. 8	U.	5	57	44.12	+11	8	14.1	14.6
10	U.			44.06			14.3	13.8
13	U.			44.04			15.7	15.9
1901								
Jan. 29	U.			44.07			15.3	15.2
Mean . . .		5	57	44.072	+11	8	14.85	14.88

B. D. +11° 1009

1900		h	m	s	°	′	″	″
Dec. 19	U.	5	57	.....	+11	40	57.6	57.0
1901								
Jan. 5	L.			49.94			57.4	57.8
13	U.			49.92			57.7	58.1
15	L.			49.91			57.1	58.0
Mean . . .		5	57	49.912	+11	40	57.45	57.72

1 Geminorum

1900		h	m	s	°	′	″	″
Feb. 13	U.	5	58	2.55	+23	16	6.0	...
14	U.			2.52			7.5	...
15	U.			2.49			8.0	...
19	U.			2.53			7.0	...
20	U.			2.54			6.9	...
23	U.			2.49			7.6	...
25	U.			2.48			7.4	...
26	U.			2.52			7.0	...
27	U.			2.51			7.3	...
Mar. 2	U.			2.53			7.0	...
3	U.			2.51			7.3	...
5	U.			2.48			7.0	...
7	U.			2.53			6.9	...
Mean . . .		5	58	2.514	+23	16	7.15	....

B. D. +11° 1022

1900		h	m	s	°	′	″	″
Dec. 10	U.	6	0	7.37	+11	13	36.5	36.0
13	U.			7.36			36.5	36.6
14	L.			7.36			36.1	38.4
16	U.			7.39			35.8	36.7
Mean . . .		6	0	7.366	+11	13	36.22	36.92

B. D. +11° 1032

1900		h	m	s	°	′	″	″
Dec. 18	L.	6	2	3.58	+11	1	10.1	10.4
20	U.			3.50			10.2	10.4
21	U.			3.53			10.7	11.4
29	U.			3.53			11.3	11.6
Mean . . .		6	2	3.531	+11	1	10.58	10.95

B. D. +11° 1038

1901		h	m	s	°	′	″	″
Jan. 5	L.	6	2	47.84	+11	24	....	39.1
13	U.			47.87			39.6	39.9
19	L.			47.84			39.1	39.1
20	U.			47.86			40.1	39.4
Mean . . .		6	2	47.844	+11	24	39.60	39.38

Circle A. B.

B. D. +12° 1032

1900		h	m	s	°	′	″	″
Dec. 10	U.	6	3	7.19	+12	17	42.6	42.4
13	U.			7.22			42.9	43.5
14	L.			7.18			42.9	43.4
16	U.			7.24			42.0	43.1
Mean . . .		6	3	7.203	+12	17	42.60	43.10

3 Geminorum

1900		h	m	s	°	′	″	
Feb. 13	U.	6	3	39.66	+23	7	48.2	....
14	U.			39.70			47.6	....
15	U.			39.69			47.3	....
18	U.			39.62			46.8	....
19	U.			39.65			47.5	....
20	U.			39.65			47.7	....
23	U.			39.67			46.6	....
25	U.			39.69			46.9	....
26	U.			39.70			47.0	....
27	U.			39.67			46.1	....
Mar. 2	U.			39.65			47.2	....
3	U.			39.65			46.4	....
5	U.			39.69			47.8	....
7	U.			39.66			47.4	....
Mean . . .		6	3	39.668	+23	7	47.19	.....

η Geminorum

1900		h	m	s	°	′	″	
Feb. 13	U.	6	8	50.50	+22	32	8.9	...
14	U.			50.48			9.5	...
15	U.			50.52			8.8	...
18	U.			50.58			9.6	...
19	U.			50.52			9.3	...
20	U.			50.51			9.3	...
23	U.			50.53			8.2	...
25	U.			50.53			9.4	...
26	U.			50.48			9.3	...
27	U.			50.52			9.3	...
Mar. 2	U.			50.52			9.8	...
3	U.			50.54			9.3	...
5	U.			50.53			8.9	...
7	U.			50.52			9.4	...
Mean . . .		6	8	50.520	+22	32	9.21	....

24 Lyncis

1900		h	m	s	°	′	″	″
Mar. 12	U.	7	34	32.97	+58	56	38.1	39.6
16	L.			32.94			35.7	38.1
21	L.			32.81			37.4	38.8
24	L.			32.73			37.3	39.0
27	L.			32.79			37.7	....
28	U.			32.86			38.5	39.6
31	U.			32.86			38.8	40.3
Apr. 1	U.			32.88			38.1	....
3	L.			32.80			36.7	38.5
Mean . . .		7	34	32.849	+58	56	37.59	39.13

κ Geminorum

1900		h	m	s	°	′	″	″
Mar. 2	U.	7	38	24.72	+24	38	17.2	....
3	U.			24.72			17.4	....
7	U.			24.68			16.9	....
9	U.			24.73			18.1	....
12	U.			24.73			17.7	14.9
16	L.			24.69			15.6	16.2
17	L.			24.71			17.0	16.0
21	L.			24.70			16.6	15.9
24	L.			24.71			16.7	15.9
27	L.			24.77			17.1	....
28	U.			24.75			16.4	15.3
31	U.			24.73			17.1	15.9
Apr. 1	U.			24.73			17.0	....
3	L.			24.69			16.5	15.8
5	U.			24.73			15.5	....
Mean . . .		7	38	24.719	+24	38	16.85	15.74

Circle A. B.

φ Geminorum

1900		h	m	s	°	′	″	″
Mar. 2	U.	7	47	22.70	+27	1	27.7	....
3	U.			22.69			28.1	....
7	U.			22.70			28.4	....
9	U.			22.65			27.7	....
12	U.			22.69			28.1	28.8
16	L.			22.74			29.1	28.2
17	L.			22.67			28.6	27.9
21	L.			22.74			28.3	28.2
24	L.			22.72			29.0	28.1
27	L.			22.66			28.3	....
28	U.			22.68			28.9	28.3
31	U.			22.70			27.9	28.2
Apr. 1	U.			22.70			28.1	....
3	L.			22.74			28.8	28.4
5	U.			22.70			29.4	....
Mean . . .		7	47	22.699	+27	1	28.43	28.26

ω^1 Cancri

1900		h	m	s	°	′	″	″
Mar. 2	U.	7	54	52.89	+25	39	60.7	....
3	U.			52.90			60.4	....
7	U.			52.93			60.7	....
9	U.			52.93			59.8	....
12	U.			52.90			61.3	59.3
16	L.			52.89			60.9	59.1
17	L.			52.93			60.7	60.0
21	L.			52.87			61.9	59.6
Apr. 1	U.			52.88			60.3	....
Mean . . .		7	54	52.902	+25	39	60.73	59.50

Lalande 15590

1900		h	m	s	°	′	″	″
Mar. 24	L.	7	55	2.53	+23	51	29.4	27.6
27	L.			2.44			28.8	....
28	U.			2.49			28.5	28.3
31	U.			2.50			28.5	28.2
Apr. 3	L.			2.47			29.0	27.6
5	U.			2.53			28.3	....
Mean . . .		7	55	2.493	+23	51	28.75	27.92

Anonymous

1900		h	m	s	°	′	″	″
Mar. 16	L.	8	1	40.93	+25	1	36.0	36.1

Lalande 15839

1900		h	m	s	°	′	″	″
Mar. 9	U.	8	1	52.59	+24	18	28.2	....
17	L.			52.51			27.7	27.6
21	L.			52.57			28.6	27.0
24	L.			52.53			28.0	[25.3]
Mean . . .		8	1	52.550	+24	18	28.12	27.30

B. D. +25° 1853

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	2	5.92	+25	0	16.5	...
3	U.			5.95			16.1	....
7	U.			5.97			15.5	....
12	U.			5.96			16.7	14.2
Mean . . .		8	2	5.950	+25	0	16.20	14.20

W. B.$_2$ VII. 1646

1900		h	m	s	°	′	″	″
Mar. 28	U.	8	2	18.03	+25	50	34.3	33.0
31	U.			18.09			33.6	33.0
Apr. 1	U.			18.08			34.3	....
3	L.			[17.93]			34.0	....
5	U.			18.00			33.0	....
Mean . . .		8	2	18.050	+25	50	33.84	33.00

Circle A. B.

ψ² Cancri

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	4	25.86	+25	48	40.0	....
3	U.			25.89			40.2	....
7	U.			25.92			40.3	....
9	U.			25.93			40.1	....
12	U.			25.86			40.0	....
16	L.			25.89			39.7	39.2
Mean . . .		8	4	25.892	+25	48	40.05	39.20

Bradley 1147

1900		h	m	s	°	′	″	″
Mar. 31	U.	8	6	59.26	+76	3	43.0	44.7
Apr. 1	U.			59.15			43.3	....
3	L.			58.82			41.9	43.0
5	U.			59.44			43.2	....
Mean . . .		8	6	59.168	+76	3	42.85	43.85

Anonymous

1900		h	m	s	°	′	″	″
Mar. 16	L.	8	7	37.25	+25	2	27.6	26.2

Lalande 16053

1900		h	m	s	°	′	″	″
Mar. 17	L.	8	7	46.20	+23	26	20.1	17.8
21	L.			46.24			20.7	21.4
24	L.			46.25			19.7	19.3
27	L.			46.22			19.6	....
28	U.			46.23			19.8	19.3
Mean . . .		8	7	46.228	+23	26	19.98	19.45

B. D. +25° 1880

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	8	44.29	+25	2	16.5	....
3	U.			44.28			16.1	....
7	U.			44.28			16.5	....
12	U.			44.24			17.1	15.7
Mean . . .		8	8	44.272	+25	2	16.55	15.70

λ Cancri

1900		h	m	s	°	′	″	″
Mar. 27	L.	8	14	35.47	+24	20	15.6	....
31	U.			35.52			15.5	13.1
Apr. 1	U.			35.44			15.2	....
3	L.			35.44			15.5	13.1
5	U.			35.49			13.4	....
Mean . . .		8	14	35.472	+24	20	15.04	13.10

W. B.₂ VIII. 252

1900		h	m	s	°	′	″	″
Mar. 17	L.	8	14	41.18	+25	39	5.2	5.2
21	L.			41.25			5.6	5.3
24	L.			41.23			5.5	3.4
28	U.			41.22			5.9	4.5
Mean . . .		8	14	41.220	+25	39	5.55	4.60

Lalande 16332

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	15	56.97	+23	16	12.7	....
3	U.			56.94			12.6	....
7	U.			56.98			12.8	....
12	U.			56.97			12.8	13.2
16	L.			56.97			11.2	12.2
Mean . . .		8	15	56.966	+23	16	12.42	12.70

υ¹ Cancri

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	20	43.08	+24	51	46.9	....
3	U.			43.04			46.9	....
7	U.			43.05			46.5	....
9	U.			43.10			47.1	....
12	U.			43.05			46.6	46.3
Mean . . .		8	20	43.064	+24	51	46.80	46.30

Circle A. B.

Lalande 16554

1900		h	m	s	°	′	″	″
Mar. 16	L.	8	21	31.86	+23	28	51.2	51.2
17	L.			32.00			51.1	49.9
21	L.			31.87			51.6	50.8
24	L.			32.02			51.1	50.5
28	U.			31.96			49.9	50.2
Mean . . .		8	21	31.942	+23	28	50.98	50.52

o Ursæ Majoris

1900		h	m	s	°	′	″	″
Mar. 31	U.	8	22	57.52	+61	3	7.7	9.4
Apr. 1	U.			57.46			7.2	....
3	L.			57.45			7.0	8.4
5	U.			57.57			10.0	....
Mean . . .		8	22	57.500	+61	3	7.98	8.90

η Cancri

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	26	55.64	+20	46	51.3	....
3	U.			55.64			52.3	....
7	U.			55.60			51.3	....
9	U.			55.62			52.0	....
12	U.			55.59			51.4	53.3
16	L.			55.64			51.1	53.2
17	L.			55.60			51.8	53.2
21	L.			55.69			52.1	52.6
24	L.			55.65			51.6	51.9
27	L.			55.66			51.8	....
28	U.			55.61			52.3	53.2
31	U.			55.64			51.9	53.0
Apr. 1	U.			55.64			51.5	....
3	L.			55.61			51.4	52.0
5	U.			55.64			51.6	....
Mean . . .		8	26	55.631	+20	46	51.69	52.80

γ Cancri

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	37	30.03	+21	49	42.7	....
3	U.			30.01			42.3	....
7	U.			30.04			42.4	....
9	U.			30.06			42.4	....
12	U.			30.04			42.4	42.1
16	L.			30.06			43.0	42.0
17	L.			30.07			42.0	41.6
21	L.			30.06			42.1	42.4
24	L.			29.99			42.8	42.1
27	L.			30.00			43.4	....
28	U.			30.03			42.8	42.7
31	U.			30.04			43.2	41.6
Apr. 1	U.			29.99			43.3	....
3	L.			30.02			43.3	42.2
5	U.			30.03			41.6	....
Mean . . .		8	37	30.031	+21	49	42.65	42.09

ι Cancri

1900		h	m	s	°	′	″	″
Mar. 2	U.	8	40	38.86	+29	7	31.9	....
3	U.			38.88			31.0	....
7	U.			38.89			31.8	....
9	U.			38.85			31.5	....
12	U.			38.90			30.7	33.0
16	L.			38.83			31.7	32.5
17	L.			38.86			31.1	....
21	L.			38.78			31.4	33.0
24	L.			38.89			31.6	33.4
27	L.			38.86			31.1	....
28	U.			38.90			31.1	31.9
31	U.			38.85			31.5	33.0
Apr. 1	U.			38.90			31.0	....
3	L.			38.90			31.6	32.9
5	U.			38.86			33.6	....
Mean . . .		8	40	38.867	+29	7	31.51	32.81

Circle A. B.

ι Ursæ Majoris

1900		h	m	s	°	′	″	″
Mar. 12	U.	8	52	21.88	+48	25	62.4	65.4
16	L.			21.75			59.8	62.9
17	L.			21.79			61.4	63.8
21	L.			21.69			62.2	65.2
24	L.			21.87			61.2	63.5
27	L.			22.00			62.0	....
28	U.			21.88			63.2	66.1
31	U.			21.79			63.7	64.9
Mean . . .		8	52	21.831	+48	26	1.99	4.54

σ² Ursæ Majoris

1900		h	m	s	°	′	″	″
Mar. 12	U.	9	1	36.04	+67	32	24.7	25.4
16	L.			35.84			22.8	24.7
17	L.			35.92			23.6	25.1
21	L.			35.83			24.5	24.9
24	L.			35.76			24.4	25.0
27	L.			36.06			25.8	....
28	U.			35.94			25.3	24.8
31	U.			36.00			25.9	26.5
Mean . . .		9	1	35.924	+67	32	24.62	25.20

υ Leonis

1901		h	m	s	°	′	″	″
Feb. 23	U.	11	31	49.73	−0	16	16.9	17.8
25	U.			49.68			18.0	18.4
26	U.			49.73			16.2	17.5
28	U.			49.70			17.3	17.1
Mar. 2	U.			49.74			16.9	17.7
5	U.			49.70			16.4	17.0
6	U.			49.70			17.0	17.0
7	U.			49.73			17.5	18.0
Mean . . .		11	31	49.714	−0	16	17.02	17.56

β Virginis

1901		h	m	s	°	′	″	″
Feb. 23	U.	11	45	29.21	+2	19	41.0	42.7
25	U.			29.21			41.6	42.4
26	U.			29.18			42.2	42.6
28	U.			29.20			42.4	41.4
Mar. 2	U.			29.19			41.9	41.5
5	U.			29.20			41.6	41.4
6	U.			29.22			41.5	41.4
7	U.			29.19			41.1	41.4
Mean . . .		11	45	29.200	+2	19	41.66	41.85

b Virginis

1901		h	m	s	°	′	″	″
Feb. 23	U.	11	54	49.62	+4	12	43.0	43.2
25	U.			49.63			43.7	43.3
26	U.			49.62			42.7	43.0
28	U.			49.62			43.6	43.4
Mar. 2	U.			49.60			43.5	44.3
5	U.			49.62			44.1	44.0
6	U.			49.62			44.2	44.1
7	U.			49.62			44.1	43.1
Mean . . .		11	54	49.619	+4	12	43.61	43.55

η Virginis

1901		h	m	s	°	′	″	″
Feb. 23	U.	12	14	47.37	−0	6	38.6	39.7
25	U.			47.41			38.7	39.3
26	U.			47.40			39.8	40.0
28	U.			47.40			39.2	39.5
Mar. 2	U.			47.40			39.4	39.5
5	U.			47.40			39.8	39.9
6	U.			47.38			39.2	40.0
7	U.			47.37			38.9	39.9
Mean . . .		12	14	47.391	0	6	39.20	39.72

Circle A. B.

W. B.₁ XII. 279

1901		h	m	s	°	′	″	″
Feb. 23	U.	12	20	10.87	− 0	30	56.6	56.0
26	U.			10.82			56.7	55.9
28	U.			10.82			57.0	57.2
Mar. 2	U.			10.91			56.2	56.4
Mean . . .		12	20	10.855	− 0	30	56.62	56.38

Lalande 23271

1901		h	m	s	°	′	″	″
Feb. 25	U.	12	21	38.91	+ 0	22	13.6	13.9
Mar. 5	U.			38.87			14.7	12.9
6	U.			38.85			13.4	13.6
7	U.			38.89			13.7	13.7
Mean . . .		12	21	38.880	+ 0	22	13.85	13.52

Lalande 23342

1901		h	m	s	°	′	″	″
Feb. 25	U.	12	24	1.97	− 1	52	34.9	33.8
Mar. 5	U.			2.01			34.9	33.9
6	U.			1.98			35.9	34.7
7	U.			1.96			35.1	34.3
Mean . . .		12	24	1.980	− 1	52	35.20	34.18

W.B.₁ XII. 363

1901		h	m	s	°	′	″	″
Feb. 23	U.	12	24	15.40	− 0	40	48.2	48.0
26	U.			15.34			47.8	47.4
28	U.			15.34			46.7	47.5
Mar. 2	U.			15.44			48.0	47.4
Mean . . .		12	24	15.380	− 0	40	47.68	47.58

B. D. +0° 2952

1901		h	m	s	°	′	″	″
Feb. 23	U.	12	27	52.16	+ 0	16	37.5	37.1
26	U.			52.10			37.8	37.9
28	U.			52.11			38.4	37.9
Mar. 2	U.			52.10			37.8	38.2
5	U.			52.19			38.0	38.3
Mean . . .		12	27	52.132	+ 0	16	37.90	37.88

Mayer 531

1901		h	m	s	°	′	″	″
Feb. 25	U.	12	29	15.79	− 0	51	22.8	22.5
Mar. 6	U.			15.70			23.0	23.0
7	U.			15.73			23.1	22.8
Mean . . .		12	29	15.740	− 0	51	22.97	22.77

Lalande 23581

1901		h	m	s	°	′	″	″
Feb. 23	U.	12	31	57.79	− 1	46	3.6	1.7
25	U.			57.87			3.9	2.1
26	U.			57.80			3.2	1.4
28	U.			57.81			2.8	1.5
Mar. 2	U.			57.72			3.5	1.5
7	U.			57.80			3.6	1.6
Mean . . .		12	31	57.798	− 1	46	3.43	1.63

Piazzi XII. 170

1901		h	m	s	°	′	″	″
Feb. 23	U.	12	39	3.28	− 2	17	40.3	40.2
25	U.			3.25			40.5	40.7
26	U.			3.28			40.2	40.0
28	U.			3.22			40.7	40.3
Mar. 2	U.			3.24			40.3	40.6
5	U.			3.33			40.5	40.9
6	U.			3.24			39.2	39.7
7	U.			3.24			40.6	40.4
Mean . . .		12	39	3.260	− 2	17	40.29	40.35

Circle A. B.

35 Virginis

1901		h	m	s	°	′	″	″
Feb. 23	U.	12	42	45.91	+ 4	7	7.8	7.6
25	U.			45.94			7.4	7.7
26	U.			45.93			7.5	7.9
28	U.			45.99			7.7	7.7
Mar. 2	U.			45.98			7.3	7.3
5	U.			45.88			7.3	7.9
6	U.			45.94			6.7	7.7
7	U.			45.95			7.8	8.2
Mean . . .		12	42	45.940	+ 4	7	7.44	7.75

37 Virginis

1901		h	m	s	°	′	″	″
Feb. 25	U.	12	46	31.49	+ 3	36	2.0	2.2
26	U.			31.46			1.2	1.8
28	U.			31.45			1.3	1.6
Mar. 2	U.			31.45			1.4	2.2
5	U.			31.46			1.3	1.9
6	U.			31.49			0.6	0.9
7	U.			31.48			1.6	2.2
Mean . . .		12	46	31.469	+ 3	36	1.34	1.83

83 Virginis

1900		h	m	s	°	′	″	″
June 5	U.	13	39	5.96	−15	40	33.4	34.1
6	U.			5.95			33.6	34.2
7	U.			6.00			32.9	33.8
9	U.			6.00			34.0	34.4
11	U.			5.96			32.8	33.8
20	U.			5.97			33.5	34.0
21	U.			6.02			34.1	34.5
22	U.			6.00			33.7	34.4
23	U.			6.01			33.3	34.3
Mean . . .		13	39	5.986	−15	40	33.48	34.17

89 Virginis

1900		h	m	s	°	′	″	″
June 5	U.	13	44	26.20	−17	38	9.9	9.9
6	U.			26.19			8.7	9.3
7	U.			26.19			9.6	9.2
9	U.			26.16			9.5	9.6
11	U.			26.23			9.1	10.7
20	U.			26.19			9.2	9.6
21	U.			26.20			9.9	9.9
22	U.			26.22			8.7	9.7
23	U.			26.18			9.2	9.6
Mean . . .		13	44	26.196	−17	38	9.31	9.72

94 Virginis

1900		h	m	s	°	′	″	″
June 5	U.	14	0	60.01	− 8	24	50.9	52.8
6	U.			60.03			51.7	52.0
7	U.			59.98			52.1	52.4
9	U.			60.01			51.1	51.6
11	U.			59.98			51.7	51.8
20	U.			59.96			51.5	51.4
21	U.			59.95			51.5	51.7
23	U.			60.02			52.3	52.0
Mean . . .		14	0	59.992	− 8	24	51.60	51.96

Anonymous

1900		h	m	s	°	′	″	″
June 22	U.	14	1	25.41	− 8	50	9.4	12.2

κ Virginis

1900		h	m	s	°	′	″	″
June 20	U.	14	7	33.66	− 9	48	29.0	29.5
21	U.			33.64			28.3	29.5
22	U.			33.62			29.4	29.8
23	U.			33.58			28.6	29.6
Mean . . .		14	7	33.625	− 9	48	28.82	29.60

Circle A. B.

Radcliffe 1890, 3678

1900		h	m	s	°	′	″	″
June 5	U.	14	8	20.73	−11	22	11.5	10.1
6	U.			20.72			11.4	10.0
7	U.			20.67			11.2	10.2
9	U.			20.78			12.2	9.7
11	U.			20.70			11.3	10.4
Mean . . .		14	8	20.720	−11	22	11.52	10.08

W. B.₁ XIV. 184

1900		h	m	s	°	′	″	″
June 5	U.	14	13	26.32	−11	36	4.8	4.9
6	U.			26.26			5.6	6.2
7	U.			26.27			5.2	5.5
9	U.			26.27			6.2	5.8
11	U.			26.30			5.3	5.9
Mean . . .		14	13	26.284	−11	36	5.42	5.66

λ Virginis

1900		h	m	s	°	′	″	″
June 20	U.	14	13	41.85	−12	54	40.0	38.9
21	U.			41.86			39.1	38.6
22	U.			41.79			39.5	39.0
23	U.			41.83			39.3	38.8
Mean . . .		14	13	41.832	−12	54	39.48	38.82

2 Libræ

1900		h	m	s	°	′	″	″
June 20	U.	14	18	2.72	11	15	26.5	26.9
21	U.			2.71			27.0	. . . .
22	U.			2.70			27.4	25.5
23	U.			. . . .			28.9	. . . .
Mean . . .		14	18	2.710	−11	15	27.45	26.20

Anonymous

1900		h	m	s	°	′	″	″
June 5	U.	14	18	18.04	−12	31	33.2	32.4

W. B.₁ XIV. 283

1900		h	m	s	°	′	″	″
June 6	U.	14	18	24.32	−12	29	11.4	12.1
7	U.			24.29			11.4	11.3
9	U.			24.36			10.9	11.7
11	U.			24.28			10.7	11.8
Mean . . .		14	18	24.312	−12	29	11.10	11.72

Bradley 1861

1900		h	m	s	°	′	″	″
June 20	U.	14	19	18.33	−11	12	. . . .	54.2
21	U.			18.27			57.0	56.5
22	U.			18.34			56.6	55.9
23	U.			18.38			57.5	56.1
Mean . . .		14	19	18.330	−11	12	57.03	55.68

Mayer 589

1900		h	m	s	°	′	″	″
June 5	U.	14	22	19.96	−12	54	35.3	34.4
6	U.			19.97			35.4	34.9
7	U.			19.89			35.3	34.7
9	U.			19.95			36.2	35.2
11	U.			19.89			34.5	35.5
20	U.			19.94			35.6	35.0
Mean . . .		14	22	19.933	−12	54	35.38	34.95

Mayer 592

1900		h	m	s	°	′	″	″
June 5	U.	14	31	40.50	−11	52	49.9	47.2
6	U.			40.47			49.8	48.7
7	U.			40.54			49.8	48.5
9	U.			40.50			49.8	48.0
11	U.			40.53			50.4	48.6
20	U.			40.48			49.4	49.3
21	U.			. . . . .			49.7	48.9
22	U.			40.52			49.4	48.1
23	U.			40.53			49.1	48.8
Mean . .		14	31	40.509	−11	52	49.70	48.46

Circle A. B.

8 Libræ

1900		h	m	s	°	′	″	″
June 5	U.	14	45	9.29	−15	34	53.6	53.3
6	U.			9.22			53.9	53.5
7	U.			9.25			53.2	53.4
9	U.			9.26			53.3	53.9
11	U.			9.28			53.7	52.4
20	U.			9.27			53.7	53.4
21	U.			9.21			53.5	53.3
22	U.			9.21			53.3	52.9
23	U.			9.26			54.6	53.3
Mean . . .		14	45	9.250	−15	34	53.64	53.27

ζ¹ Libræ

1900		h	m	s	°	′	″	″
June 6	U.	15	22	37.03	−16	22	4.5	4.5
7	U.			36.93			3.3	3.7
9	U.			36.95			3.7	3.3
11	U.			36.92			3.5	3.3
19	U.			36.93			4.8	4.3
20	U.			36.93			4.3	3.4
22	U.			36.95			3.8	3.6
25	U.			36.93			4.7	4.3
26	U.			36.90			4.3	3.4
27	U.			36.93			...	3.5
30	U.			36.92			...	4.3
July 1	U.			36.96			...	4.3
2	U.			36.93			4.2	3.5
7	U.			36.90			...	3.2
9	U.			36.92			4.2	4.5
10	U.			36.89			5.4	3.9
11	U.			36.91			4.5	3.5
16	U.			36.91			4.2	4.2
Mean . . .		15	22	36.930	−16	22	4.24	3.82

γ Libræ

1900		h	m	s	°	′	″	″
June 7	U.	15	29	55.88	−14	27	20.6	22.9
9	U.			55.88			21.1	22.9
11	U.			55.86			21.2	23.0
19	U.			55.84			22.1	22.3
20	U.			55.84			21.5	22.7
22	U.			55.86			22.4	22.6
25	U.			55.85			22.2	23.4
26	U.			55.85			21.7	23.2
27	U.			55.88			....	22.4
30	U.			55.86			....	23.6
July 1	U.			55.86			....	22.8
2	U.			55.84			21.8	23.9
7	U.			55.84			....	23.7
8	U.			.....			22.2	22.9
9	U.			55.87			22.1	24.1
10	U.			55.86			21.7	22.8
11	U.			55.85			22.8	23.0
16	U.			55.87			22.6	23.1
Mean . . .		15	29	55.858	−14	27	21.86	23.07

κ Libræ

1900		h	m	s	°	′	″	″
June 7	U.	15	36	11.04	−19	21	16.9	15.4
9	U.			11.00			16.8	15.8
11	U.			11.00			17.1	16.1
19	U.			11.04			15.5	15.4
20	U.			11.07			16.2	15.9
22	U.			11.06			15.8	15.7
25	U.			11.00			15.2	16.3
26	U.			11.02			16.3	16.1
27	U.			11.00			....	16.1
30	U.			11.05			....	15.8
July 1	U.			10.99			....	15.7
2	U.			11.04			16.9	16.7
7	U.			11.07			....	15.4
8	U.			10.98			15.2	15.8
9	U.			11.00			15.7	16.4
10	U.			11.03			16.1	16.0
11	U.			11.03			16.6	15.9
16	U.			10.98			16.3	15.9
Mean . . .		15	36	11.022	−19	21	16.19	15.91

Circle A. B.

λ Libræ

1900		h	m	s	°	′	″	″
June 25	U.	15	47	31.68	−19	52	4.7	3.7
26	U.			31.69			5.3	4.9
30	U.			31.63			...	4.2
July 1	U.			31.65			...	4.3
2	U.			.....			4.8	3.0
8	U.			31.67			4.5	3.9
9	U.			31.67			3.9	4.3
10	U.			31.68			4.4	4.5
11	U.			31.67			3.8	4.7
16	U.			31.69			4.0	3.8
Mean . . .		15	47	31.670	−19	52	4.42	4.13

47 Libræ

1900		h	m	s	°	′	″	″
June 7	U.	15	49	13.53	−19	5	15.9	14.5
9	U.			13.55			13.7	14.7
11	U.			13.56			14.5	14.5
19	U.			13.54			14.2	14.3
20	U.			13.59			15.3	15.2
Mean . . .		15	49	13.554	−19	5	14.72	14.64

Piazzi XV. 210

1900		h	m	s	°	′	″	″
June 25	U.	15	51	20.90	−21	11	40.9	41.7
26	U.			20.90			41.6	41.4
30	U.			20.92			....	41.6
July 2	U.			.....			42.3	41.5
8	U.			20.85			40.6	41.5
9	U.			20.89			42.0	41.4
Mean . . .		15	51	20.892	−21	11	41.48	41.52

Lalande 29044

1900		h	m	s	°	′	″	″
June 7	U.	15	53	19.34	−19	39	5.4	5.1
9	U.			19.42			3.7	3.9
11	U.			19.36			3.9	5.6
19	U.			19.42			5.5	4.3
20	U.			19.43			5.0	4.8
Mean . . .		15	53	19.394	−19	39	4.70	4.74

Lalande 29094

1900		h	m	s	°	′	″	″
June 25	U.	15	55	14.40	−20	52	23.4	22.0
26	U.			14.40			22.6	22.2
30	U.			14.38			....	21.4
July 1	U.			14.37			....	21.8
2	U.			.....			23.3	21.8
16	U.			14.43			22.6	20.5
Mean . . .		15	55	14.396	−20	52	22.98	21.62

Lalande 29156

1900		h	m	s	°	′	″	″
June 7	U.	15	57	18.37	−19	33	45.2	44.4
9	U.			18.34			44.2	43.3
11	U.			18.32			46.9	43.9
19	U.			18.37			45.1	44.1
20	U.			18.37			44.7	43.3
Mean . . .		15	57	18.354	−19	33	45.22	43.80

β Scorpii

1900		h	m	s	°	′	″	″
June 22	U.	15	59	37.38	−19	31	52.8	53.2
25	U.			37.30			53.6	53.4
26	U.			37.35			53.5	54.8
30	U.			37.21			....	54.3
July 1	U.			37.30			....	54.3
2	U.			.....			54.0	55.0
Mean . . .		15	59	37.308	−19	31	53.48	54.17

Circle A. B.

O. A. 15199

1900		h	m	s	°	′	″	″
June 7	U.	15	59	49.76	−21	33	57.2	55.7
9	U.			49.85			54.3	54.0
11	U.			49.81			56.7	55.7
19	U.			49.75			55.7	55.1
20	U.			49.79			56.6	55.1
Mean . . .		15	59	49.792	−21	33	56.10	55.12

ω¹ Scorpii

1900		h	m	s	°	′	″	″
July 8	U.	16	0	57.35	−20	23	53.4	53.3
9	U.			57.36			54.5	52.4
10	U.			57.33			53.8	53.2
11	U.			57.40			54.5	53.3
16	U.			57.42			53.4	52.7
Mean . . .		16	0	57.372	−20	23	53.92	52.98

ω² Scorpii

1900		h	m	s	°	′	″	″
June 7	U.	16	1	32.33	−20	35	54.3	54.2
9	U.			32.40			54.3	53.2
11	U.			32.33			54.2	54.0
20	U.			32.38			54.6	53.6
July 1	U.			32.37			....	54.4
Mean . . .		16	1	32.362	−20	35	54.35	53.88

ν Scorpii

1900		h	m	s	°	′	″	″
June 7	U.	16	6	10.94	−19	12	3.4	1.2
9	U.			10.96			3.0	1.3
11	U.			10.94			3.5	2.4
19	U.			10.99			3.2	1.9
20	U.			10.98			2.2	2.0
Mean . . .		16	6	10.962	−19	12	3.06	1.76

Piazzi XVI. 10

1900		h	m	s	°	′	″	″
June 25	U.	16	7	47.64	−21	8	41.2	40.1
26	U.			47.61			41.0	41.0
30	U.			47.62			....	41.3
July 1	U.			47.63			....	40.3
2	U.			47.58			40.6	39.8
8	U.			47.59			41.2	....
Mean . . .		16	7	47.612	−21	8	41.00	40.50

Lalande 29552

1900		h	m	s	°	′	″	″
June 7	U.	16	8	52.98	−18	16	44.9	....
9	U.			52.95			43.4	42.5
11	U.			52.93			44.1	44.8
19	U.			52.98			42.5	42.9
20	U.			52.95			43.6	43.2
Mean . . .		16	8	52.958	−18	16	43.70	43.35

Piazzi XVI. 17

1900		h	m	s	°	′	″	″
July 8	U.	16	8	57.29	−22	7	35.7	36.3
9	U.			57.44			36.7	35.6
10	U.			57.39			36.7	36.6
11	U.			57.41			36.6	36.4
16	U.			57.41			36.6	35.7
Mean . . .		16	8	57.388	−22	7	36.46	36.12

Circle A. B.

Piazzi XVI. 28

1900	h	m	s	°	′	″	″
June 9 U.	16	11	8.43	−19	51	19.5	18.1
19 U.			8.48			18.4	18.0
20 U.			8.43			18.2	18.5
25 U.			8.41			18.2	19.0
26 U.			8.41			19.2	20.2
Mean . . .	16	11	8.432	−19	51	18.70	18.76

Piazzi XVI. 39

1900	h	m	s	°	′	″	″
June 25 U.	16	13	16.30	−19	58	25.0	26.5
26 U.			16.28			25.2	26.4
30 U.			16.26			....	25.1
July 1 U.			16.33			....	26.0
2 U.			16.25			25.5	25.7
Mean . . .	16	13	16.284	−19	58	25.23	25.94

B. D. −18° 4266

1900	h	m	s	°	′	″	″
June 7 U.	16	14	41.68	−18	26	57.8	58.2
9 U.			41.60			57.2	57.2
11 U.			41.63			58.7	58.5
19 U.			41.67			57.2	58.4
20 U.			41.63			56.9	57.5
Mean . . .	16	14	41.642	−18	26	57.56	57.96

O. A. 15541

1900	h	m	s	°	′	″	″
July 8 U.	16	14	47.85	−21	35	60.7	59.5
10 U.			47.92			61.6	60.2
11 U.			47.91			61.1	59.5
16 U.			47.94			61.3	59.7
Mean . . .	16	14	47.905	−21	35	61.18	59.72

Lalande 29770

1900	h	m	s	°	′	″	″
June 7 U.	16	16	53.09	−22	52	57.0	56.2
9 U.			53.12			56.7	55.3
19 U.			53.21			56.9	56.3
20 U.			53.13			57.1	56.8
25 U.			53.14			58.4	....
Mean . . .	16	16	53.138	−22	52	57.22	56.15

ψ Ophiuchi

1900	h	m	s	°	′	″	″
June 11 U.	16	18	14.94	−19	48	11.8	12.2
25 U.			14.98			11.3	11.2
26 U.			14.99			11.0	11.4
30 U.			15.00			....	11.4
July 9 U.			15.00			11.0	11.9
16 U.			15.08			12.1	11.1
Mean . . .	16	18	14.998	−19	48	11.44	11.53

B. D. −19° 4368

1900	h	m	s	°	′	″	″
July 1 U.	16	19	35.87	−19	36	....	24.2
2 U.			35.81			24.0	24.4
8 U.			35.80			23.6	24.2
10 U.			35.86			24.5	24.2
11 U.			35.90			23.9	23.8
Mean . . .	16	19	35.848	−19	36	24.00	24.16

χ Ophiuchi

1900	h	m	s	°	′	″	″
June 7 U.	16	21	13.63	−18	13	46.7	45.3
9 U.			13.61			45.3	44.8
11 U.			13.63			46.1	45.2
19 U.			13.68			44.8	44.9
20 U.			13.67			45.0	44.5
July 16 U.			13.62			46.1	44.6
Mean . . .	16	21	13.640	−18	13	45.67	44.88

Circle A. B.

O. A. 15647

1900	h	m	s	°	′	″	″
June 26 U.	16	21	18.20	−21	53	33.7	32.2
July 1 U.			18.14			....	32.7
2 U.			18.18			33.9	32.9
8 U.			18.12			33.9	32.7
9 U.			18.18			32.2	33.1
10 U.			18.17			34.0	32.8
Mean . . .	16	21	18.165	−21	53	33.54	32.73

B. D. −21° 4366

1900	h	m	s	°	′	″	″
June 7 U.	16	23	24.54	−21	20	50.5	....
9 U.			24.53			49.7	49.0
11 U.			24.54			50.1	49.3
19 U.			24.56			49.5	50.0
20 U.			24.53			50.1	49.9
30 U.			24.51			....	49.8
July 11 U.			24.52			50.7	50.6
Mean . . .	16	23	24.533	−21	20	50.10	49.77

B. D. −18° 4287

1900	h	m	s	°	′	″	″
June 26 U.	16	23	54.18	−18	27	13.7	14.4
July 1 U.			54.06			....	14.7
2 U.			54.10			14.1	14.7
8 U.			54.06			12.6	14.9
9 U.			54.14			13.9	13.8
10 U.			54.13			14.1	14.2
Mean . . .	16	23	54.112	−18	27	13.68	14.45

ω Ophiuchi

1900	h	m	s	°	′	″	″
June 7 U.	16	26	12.47	−21	15	9.6	7.6
9 U.			12.43			8.7	6.6
11 U.			12.39			10.3	7.9
19 U.			12.50			8.3	8.2
20 U.			12.46			9.5	6.8
25 U.			12.48			9.4	7.6
Mean . . .	16	26	12.455	−21	15	9.30	7.45

Lalande 30046

1900	h	m	s	°	′	″	″
June 26 U.	16	26	32.34	20	32	15.8	16.3
July 1 U.			32.31			....	15.3
2 U.			32.28			16.2	15.0
8 U.			32.21			13.7	15.7
10 U.			32.29			15.8	16.0
Mean . . .	16	26	32.286	−20	32	15.38	15.66

O. A. 15742

1900	h	m	s	°	′	″	″
June 9 U.	16	28	55.52	−19	43	54.5	52.2
11 U.			55.48			55.1	54.1
19 U.			55.55			54.7	53.4
20 U.			55.52			53.7	53.0
July 11 U.			55.50			55.1	53.9
Mean . . .	16	28	55.514	−19	43	54.62	53.32

B. D. −18° 4295

1900	h	m	s	°	′	″	″
June 26 U.	16	29	41.34	−18	27	55.6	57.0
30 U.			41.30			....	55.3
July 1 U.			41.30			....	56.4
2 U.			41.27			56.0	56.7
7 U.			41.32			....	55.3
8 U.			41.26			55.6	55.8
Mean . . .	16	29	41.298	−18	27	55.73	56.08

Circle A. B.

O. A. 15773

1900	h	m	s	°	′	″	″
June 9 U.	16	31	41.29	−21	51	9.8	8.9
27 U.			41.18			...	9.5
July 8 U.			41.13			9.3	10.7
10 U.			41.19			9.7	9.6
11 U.			41.19			9.7	8.8
Mean . . .	16	31	41.196	−21	51	9.62	9.50

Lalande 30207

1900	h	m	s	°	′	″	″
June 7 U.	16	32	19.82	−22	41	24.8	25.5
11 U.			19.76			25.3	25.1
20 U.			19.78			23.7	23.9
25 U.			19.82			24.5	23.8
26 U.			19.83			24.5	24.9
Mean . . .	16	32	19.802	−22	41	24.56	24.64

O. A. 15797

1900	h	m	s	°	′	″	″
June 30 U.	16	32	45.20	−18	37	....	30.3
July 1 U.			45.25			....	30.4
2 U.			45.17			29.6	30.7
7 U.			45.21			....	29.4
9 U.			45.25			29.6	29.5
10 U.			45.20			....	31.5
11 U.			45.22			31.3	31.1
Mean . . .	16	32	45.214	−18	37	30.17	30.41

Mayer 671

1900	h	m	s	°	′	″	″
June 7 U.	16	34	40.73	−20	12	49.4	47.1
9 U.			40.74			48.5	46.8
11 U.			40.73			50.1	49.0
19 U.			40.82			48.8	47.5
20 U.			40.76			48.7	47.1
Mean . . .	16	34	40.756	20	12	49.10	47.50

Bradley 2115

1900	h	m	s	°	′	″	″
June 25 U.	16	36	0.87	−19	43	57.4	56.4
26 U.			0.95			58.1	57.5
27 U.			0.93			....	56.8
30 U.			0.92			....	56.1
July 1 U.			0.94			....	56.7
9 U.			0.92			57.8	56.6
Mean . . .	16	36	0.922	−19	43	57.77	56.68

O. A. 15868

1900	h	m	s	°	′	″	″
June 7 U.	16	37	5.44	−21	9	8.0	6.6
9 U.			5.38			7.2	6.2
11 U.			5.40			7.6	6.5
19 U.			5.44			7.6	7.3
20 U.			5.42			7.6	7.3
Mean . . .	16	37	5.416	−21	9	7.60	6.78

15 Ophiuchi

1900	h	m	s	°	′	″	″
June 25 U.	16	39	7.76	−22	59	52.5	51.9
26 U.			7.78			51.7	53.2
27 U.			7.75			....	52.7
30 U.			7.72			....	52.0
July 1 U.			7.78			....	52.2
8 U.			7.70			52.4	52.0
Mean . . .	16	39	7.748	−22	59	52.20	52.33

Circle A. B.

Lalande 30551

1900		h	m	s	°	′	″	″
June 7	U.	16	43	37.10	−21	40	35.7	35.0
9	U.			37.14			34.5	33.8
11	U.			37.13			36.9	35.3
19	U.			37.18			34.9	34.7
20	U.			37.09			34.7	35.1
Mean . . .		16	43	37.128	−21	40	35.34	34.78

24 Ophiuchi

1900		h	m	s	°	′	″	″
June 7	U.	16	50	46.09	−22	59	30.7	29.8
9	U.			46.11			29.3	29.9
11	U.			46.12			29.1	29.0
19	U.			46.01			29.6	29.2
20	U.			46.10			29.2	29.3
25	U.			46.11			29.5	....
26	U.			46.09			29.1	29.2
27	U.			46.17			....	28.8
30	U.			46.05			....	28.8
July 1	U.			46.13			....	29.9
2	U.			46.10			28.8	29.1
7	U.			46.13			30.2	29.1
8	U.			46.13			29.5	29.8
10	U.			46.08			29.5	28.8
11	U.			46.08			29.5	28.8
16	U.			46.12			29.9	29.2
Mean . . .		16	50	46.101	−22	59	29.53	29.25

η Ophiuchi

1900		h	m	s	°	′	″	″
June 7	U.	17	4	38.51	−15	36	...	3.9
9	U.			38.52			3.6	3.7
19	U.			38.57			3.5	4.5
20	U.			38.56			3.9	4.0
25	U.			38.49			3.9	4.6
26	U.			38.59			3.5	4.3
27	U.			38.57			...	4.9
30	U.			38.58			...	5.0
July 1	U.			38.56			...	5.6
2	U.			38.55			4.3	4.8
7	U.			38.48			3.6	3.6
8	U.			38.52			3.7	3.8
10	U.			38.59			3.8	4.0
11	U.			38.58			3.8	4.0
16	U.			38.59			3.7	4.9
Mean . . .		17	4	38.551	−15	36	3.75	4.37

36 Ophiuchi

1900		h	m	s	°	′	″	″
June 7	U.	17	9	11.86	−26	27	21.9	21.8
9	U.			11.83			22.7	21.8
11	U.			11.82			22.6	22.2
19	U.			11.87			[17.3]	[17.5]
20	U.			11.79			22.5	23.0
25	U.			11.87			22.6	21.2
26	U.			11.82			24.1	23.6
27	U.			11.82			....	23.5
30	U.			11.83			....	21.4
July 1	U.			11.83			....	21.9
2	U.			11.84			21.8	22.7
7	U.			11.80			21.7	22.4
8	U.			11.83			22.1	21.5
10	U.			11.82			21.7	22.1
11	U.			11.82			22.6	23.1
16	U.			11.77			22.4	22.8
Mean . . .		17	9	11.826	−26	27	22.39	22.33

Circle A. B.

ξ Ophiuchi

1900		h	m	s	°	′	″	″
June 26	U.	17	15	0.57	−21	0	19.3	19.9
27	U.			0.59			....	19.4
30	U.			0.60			....	18.8
July 1	U.			0.59			....	19.7
2	U.			0.58			18.9	18.6
7	U.			0.64			19.6	20.3
8	U.			0.61			20.3	19.4
9	U.			0.67			19.8	18.8
10	U.			0.60			19.9	18.8
11	U.			0.61			19.1	19.5
Mean . . .		17	15	0.606	−21	0	19.56	19.32

Lalande 31552

1900		h	m	s	°	′	″	″
July 7	U.	17	17	1.04	−20	7	7.0	6.3
8	U.			0.97			5.8	6.4
9	U.			1.05			5.7	5.6
10	U.			1.01			5.9	6.2
11	U.			0.97			5.8	6.0
Mean . . .		17	17	1.008	−20	7	6.04	6.10

Mayer 701

1900		h	m	s	°	′	″	″
June 26	U.	17	18	43.16	−21	20	52.2	52.4
30	U.			43.16			....	52.2
July 1	U.			43.07			....	52.2
2	U.			.....			53.2	52.4
7	U.			43.15			52.1	52.2
8	U.			43.08			52.8	52.3
Mean . . .		17	18	43.124	−21	20	52.58	52.28

Lalande 31733

1900		h	m	s	°	′	″	
June 26	U.	17	22	18.35	−20	52	49.6	49.4
30	U.			18.28			....	48.0
July 1	U.			18.34			....	48.5
2	U.			18.31			49.8	48.4
7	U.			18.36			50.5	....
Mean . . .		17	22	18.328	−20	32	49.97	48.58

O. A. 16844

1900		h	m	s	°	′	″	″
July 7	U.	17	23	49.71	−19	23	33.7	33.8
8	U.			49.66			33.0	32.4
9	U.			49.65			33.7	32.1
10	U.			49.68			33.7	32.7
11	U.			49.68			33.3	32.6
Mean . . .		17	23	49.676	−19	23	33.48	32.72

C^2 Ophiuchi

1900		h	m	s	°	′	″	″
June 26	U.	17	25	18.76	−23	53	8.3	7.0
27	U.			18.90			...	6.7
30	U.			18.87			...	6.5
July 1	U.			18.78			...	6.6
2	U.			18.85			7.4	6.4
16	U.			18.84			7.6	6.2
Mean . . .		17	25	18.833	−23	53	7.77	6.57

Circle A. B.

X Sagittarii

1900		h	m	s	°	′	″	″
June 26	U.	17	41	15.95	−27	47	34.4	32.5
27	U.			15.94			....	34.0
30	U.			15.94			....	33.9
July 1	U.			16.04			....	33.4
2	U.			15.97			33.7	34.0
7	U.			15.98			33.5	33.2
8	U.			15.96			34.4	34.0
9	U.			15.94			33.9	33.1
10	U.			15.98			34.3	34.0
11	U.			15.94			33.9	33.8
16	U.			15.93			33.8	33.6
Mean . . .		17	41	15.961	−27	47	33.99	33.59

Mayer 722

1900		h	m	s	°	′	″	″
June 26	U.	17	50	2.11	−18	47	4.0	3.7
27	U.			2.02			...	4.1
30	U.			2.10			...	4.5
July 1	U.			2.05			...	3.0
2	U.			2.08			4.3	4.4
8	U.			2.07			4.2	4.8
9	U.			2.07			4.0	4.1
10	U.			2.07			3.6	4.3
11	U.			2.10			3.3	3.5
16	U.			2.06			3.2	3.9
Mean . . .		17	50	2.073	−18	47	3.80	4.03

Mayer 734

1900		h	m	s	°	′	″	″
July 8	U.	18	1	11.56	−21	27	15.2	14.4
9	U.			11.44			14.6	13.7
10	U.			11.52			14.7	15.3
11	U.			11.51			14.7	14.7
16	U.			11.46			15.4	14.4
Mean . . .		18	1	11.498	−21	27	14.92	14.50

C. Z. XVIII. 11

1900		h	m	s	°	′	″	″
June 26	U.	18	1	41.12	−23	6	57.9	59.0
27	U.			41.10			....	59.3
30	U.			41.09			....	59.1
July 1	U.			41.14			....	59.1
2	U.			41.08			58.6	59.6
Mean . . .		18	1	41.106	−23	6	58.25	59.22

O. A. 17753

1900		h	m	s	°	′	″	″
June 26	U.	18	4	42.20	−22	15	29.9	28.9
27	U.			42.17			....	28.9
30	U.			42.19			....	29.6
July 1	U.			42.25			....	28.2
2	U.			42.22			30.1	29.6
Mean . . .		18	4	42.206	−22	15	30.00	29.04

1 Sagittarii

1900		h	m	s	°	′	″	″
July 8	U.	18	5	37.24	−23	43	16.6	16.0
9	U.			37.24			17.5	15.8
10	U.			37.25			17.5	17.2
11	U.			37.24			17.6	17.2
16	U.			37.17			17.8	16.5
Mean . . .		18	5	37.228	23	43	17.40	16.54

μ Sagittarii

1900		h	m	s	°	′	Circle A. ″	B. ″
June 26	U.	18	7	46.96	−21	5	5.7	4.7
27	U.			47.02			...	4.8
30	U.			46.98			...	4.1
July 1	U.			47.01			...	4.1
2	U.			46.96			6.8	4.9
Mean . . .		18	7	46.986	−21	5	6.25	4.52

14 Sagittarii

1900		h	m	s	°	′	″	″
July 8	U.	18	8	15.48	−21	44	23.1	21.4
9	U.			15.47			24.1	21.6
10	U.			15.51			23.6	23.0
11	U.			15.48			23.6	22.7
16	U.			15.46			24.3	23.0
Mean . . .		18	8	15.480	−21	44	23.74	22.34

Lalande 33516

1900		h	m	s	°	′	″	″
July 8	U.	18	10	27.64	−23	56	2.3	...
9	U.			27.72			2.1	0.7
10	U.			27.67			2.5	1.5
11	U.			27.69			2.6	2.5
16	U.			27.62			2.8	2.2
Mean . . .		18	10	27.668	−23	56	2.46	1.72

Lalande 33591

1900		h	m	s	°	′	Circle A. ″	B. ″
June 26	U.	18	11	54.74	−22	22	43.1	44.2
27	U.			54.77			....	43.9
30	U.			54.78			....	45.1
July 1	U.			54.74			....	43.8
2	U.			54.68			46.1	43.8
Mean . . .		18	11	54.742	−22	22	44.60	44.16

Lacaille 7686

1900		h	m	s	°	′	″	″
June 26	U.	18	15	59.32	−22	58	2.3	5.8
27	U.			59.31			...	3.7
30	U.			59.25			...	3.1
July 1	U.			59.30			...	3.2
2	U.			59.28			3.8	3.8
Mean . . .		18	15	59.292	−22	58	3.05	3.92

λ Sagittarii

1900		h	m	s	°	′	″	″
June 26	U.	18	21	48.03	−25	28	36.8	37.0
27	U.			47.97			....	35.8
30	U.			47.96			....	37.2
July 1	U.			47.97			....	36.8
2	U.			48.01			36.6	37.0
8	U.			47.98			36.6	....
9	U.			47.98			36.5	36.9
10	U.			48.01			36.3	37.2
11	U.			48.02			37.2	38.0
16	U.			48.02			36.7	36.3
Mean . . .		18	21	47.995	−25	28	36.67	36.91

Bradley 2335

1900		h	m	s	°	′	Circle A. ″	B. ″
June 26	U.	18	32	.....	−21	8	4.4	4.4
27	U.			55.67			...	4.5
30	U.			55.68			...	4.0
July 1	U.			55.67			...	4.1
2	U.			55.63			4.6	4 3
9	U.			55.66			5.4	3.6
10	U.			55.63			5.0	4.5
11	U.			55.62			4.8	3.9
16	U.			55.62			4.5	4.5
Mean . . .		18	32	55.648	−21	8	4.78	4.20

CATALOGUE

OF

139 ZODIACAL STARS.

NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.
			A.	B.	Mean.	
	h m s		° ′ ″	″	″	
ι Tauri	4 57 7.064	12	+21 26 49.90	....	....	12
108 Tauri	5 9 27.000	12	22 10 13.47	....	....	12
n Tauri	5 13 16.075	14	21 59 35.80	....	....	14
Lal. 10107	5 19 13.734	8	20 29 33.10	....	....	8
o Tauri	5 21 37.706	8	21 51 5.66	....	....	8
W. B.₂ V. 541	5 21 51.424	5	23 12 33.46	....	....	5
W. B.₂ V. 618	5 24 8.818	6	21 18 5.70	....	....	6
Mayer 219	5 27 42.160	7	20 24 11.64	....	....	7
Rümker 1471	5 28 53.816	7	22 30 4.56	....	....	7
ζ Tauri	5 31 40.088	13	+21 4 53.62	....	....	13
Anonymous	5 35 57.100	1	+22 30 4.60	....	....	1
Piazzi V. 184	5 36 1.235	4	22 36 36.05	....	....	4
Anonymous	5 36 49.310	1	21 20 24.10	....	....	1
Piazzi V. 192	5 37 15.154	5	23 9 25.44	....	....	5
W. B.₂ V. 1127	5 37 22.535	4	21 22 8.70	....	....	4
Lal. 10891	5 41 12.663	7	22 29 28.50	....	....	7
Lal. 10913	5 41 40.315	6	20 54 15.87	....	....	6
Lal. 11062	5 45 45.777	7	23 21 21.69	....	....	7
Anonymous	5 47 11.190	1	22 2 14.70	....	....	1
B. D. +22° 1080	5 47 18.176	5	+22 3 2.78	....	....	5
χ¹ Orionis	5 48 27.639	7	+20 15 27.10	....	....	7
Anonymous	5 52 48.920	1	20 39 17.90	....	....	1
W. B.₂ V. 1652	5 52 57.705	4	20 40 1.20	....	....	4
Lal. 11293	5 53 39.372	4	21 35 47.50	....	....	4
140 Tauri	5 54 24.530	6	22 53 37.82	....	....	6
1 Geminorum	5 58 2.514	13	23 16 7.15	....	....	13
3 Geminorum	6 3 39.668	14	23 7 47.19	....	....	14
η Geminorum	6 8 50.520	14	22 32 9.21	....	....	14
κ Geminorum	7 38 24.719	15	24 38 16.85	15.74	16.30	15
φ Geminorum	7 47 22.699	15	+27 1 28.43	28.26	28.34	15
ω¹ Cancri	7 54 52.902	9	+25 39 60.73	59.50	60.12	9
Lal. 15590	7 55 2.493	6	23 51 28.75	27.92	28.34	6
Anonymous	8 1 40.930	1	25 1 36.00	36.10	36.05	1
Lal. 15839	8 1 52.550	4	24 18 28.12	27.30	27.71	4
B. D. +25° 1853	8 2 5.950	4	25 0 16.20	14.20	15.20	4
W. B.₂ VII. 1646	8 2 18.050	4	25 50 33.84	33.00	33.42	5
ψ² Cancri	8 4 25.892	6	25 48 40.05	39.20	39.62	6
Anonymous	8 7 37.250	1	25 2 27.60	26.20	26.90	1
Lal. 16053	8 7 46.228	5	23 26 19.98	19.45	19.72	5
B. D. +25° 1880	8 8 44.272	4	+25 2 16.55	15.70	16.12	4
λ Cancri	8 14 35.472	5	+24 20 15.04	13.10	14.07	5
W. B.₂ VIII. 252	8 14 41.220	4	25 39 5.55	4.60	5.08	4
Lal. 16332	8 15 56.966	5	23 16 12.42	12.70	12.56	5
υ¹ Cancri	8 20 43.064	5	24 51 46.80	46.30	46.55	5
Lal. 16554	8 21 31.942	5	23 28 50.98	50.52	50.75	5
η Cancri	8 26 55.631	15	20 46 51.69	52.80	52.24	15
γ Cancri	8 37 30.031	15	21 49 42.65	42.09	42.37	15
ι Cancri	8 40 38.867	15	+29 7 31.51	32.81	32.16	15
υ Leonis	11 31 49.714	8	- 0 16 17.02	17.56	17.29	8
β Virginis	11 45 29.200	8	+ 2 19 41.66	41.85	41.76	8
b Virginis	11 54 49.619	8	+ 4 12 43.61	43.55	43.58	8
η Virginis	12 14 47.391	8	- 0 6 39.20	39.72	39.46	8
W. B.₁ XII. 279	12 20 10.855	4	- 0 30 56.62	56.38	56.50	4
Lal. 23271	12 21 38.880	4	+ 0 22 13.85	13.52	13.68	4
Lal. 23342	12 24 1.980	4	— 1 52 35.20	34.18	34.69	4
W. B.₁ XII. 363	12 24 15.380	4	— 0 40 47.68	47.58	47.63	4
B. D. +0° 2952	12 27 52.132	5	+ 0 16 37.90	37.88	37.89	5
Mayer 531	12 29 15.740	3	- 0 51 22.97	22.77	22.87	3
Lal. 23581	12 31 57.798	6	1 46 3.43	1.63	2.53	6
Piazzi XII. 170	12 39 3.260	8	- 2 17 40.29	40.35	40.32	8
35 Virginis	12 42 45.940	8	+ 4 7 7.44	7.75	7.60	8
37 Virginis	12 46 31.469	7	+ 3 36 1.34	1.83	1.58	7
83 Virginis	13 39 5.986	9	-15 40 33.48	34.17	33.82	9
89 Virginis	13 44 26.196	9	17 38 9.31	9.72	9.52	9
94 Virginis	14 0 59.992	8	8 24 51.60	51.96	51.78	8
Anonymous	14 1 25.410	1	8 50 9.40	12.20	10.80	1
κ Virginis	14 7 33.625	4	9 48 28.82	29.60	29.21	4
Rad. 1890, 3678	14 8 20.720	5	11 22 11.52	10.08	10.80	5
W. B.₁ XIV. 184	14 13 26.284	5	11 36 5.42	5.66	5.54	5
λ Virginis	14 13 41.832	4	—12 54 39.48	38.82	39.15	4
2 Libræ	14 18 2.710	3	—11 15 27.45	26.20	26.82	4
Anonymous	14 18 18.040	1	12 31 33.20	32.40	32.80	1
W. B.₁ XIV. 283	14 18 24.312	4	12 29 11.10	11.72	11.41	4
Bradley 1861	14 19 18.330	4	11 12 57.03	55.68	56.36	4
Mayer 589	14 22 19.933	6	12 54 35.38	34.95	35.16	6
Mayer 592	14 31 40.509	8	11 52 49.70	48.46	49.08	9
8 Libræ	14 45 9.250	9	15 34 53.64	53.27	53.46	9
ζ¹ Libræ	15 22 36.930	18	16 22 4.24	3.82	4.03	18
γ Libræ	15 29 55.858	17	14 27 21.86	23.07	22.46	18
κ Libræ	15 36 11.022	18	—19 21 16.19	15.91	16.05	18
λ Libræ	15 47 31.670	9	—19 52 4.42	4.13	4.28	10
47 Libræ	15 49 13.554	5	19 5 14.72	14.64	14.68	5
Piazzi XV. 210	15 51 20.892	5	21 11 41.48	41.52	41.50	6
Lal. 29044	15 53 19.394	5	19 39 4.70	4.74	4.72	5
Lal. 29094	15 55 14.396	5	20 52 22.98	21.62	22.30	6
Lal. 29156	15 57 18.354	5	19 33 45.22	43.80	44.51	5
β Scorpii	15 59 37.308	5	19 31 53.48	54.17	53.82	6
O. A. 15199	15 59 49.792	5	21 33 56.10	55.12	55.61	5
ω¹ Scorpii	16 0 57.372	5	20 23 53.92	52.98	53.45	5
ω² Scorpii	16 1 32.362	5	20 35 54.35	53.88	54.12	5
ν Scorpii	16 6 10.962	5	—19 12 3.06	1.76	2.41	5
Piazzi XVI. 10	16 7 47.612	6	21 8 41.00	40.50	40.75	6
Lal. 29552	16 8 52.958	5	18 16 43.70	43.35	43.52	5
Piazzi XVI. 17	16 8 57.388	5	22 7 36.46	36.12	36.29	5
Piazzi XVI. 28	16 11 8.432	5	19 51 18.70	18.76	18.73	5
Piazzi XVI. 39	16 13 16.284	5	19 58 25.23	25.94	25.58	5
B. D. − 18° 4266	16 14 41.642	5	18 26 57.56	57.96	57.76	5
O. A. 15541	16 14 47.905	4	21 35 61.18	59.72	60.45	4
Lal. 29770	16 16 53.138	5	22 52 57.22	56.15	56.68	5
ψ Ophiuchi	16 18 14.998	6	—19 48 11.44	11.53	11.48	6
B. D. —19° 4368	16 19 35.848	5	—19 36 24.00	24.16	24.08	5
χ Ophiuchi	16 21 13.640	6	18 13 45.67	44.88	45.28	6
O. A. 15647	16 21 18.165	6	21 53 33.54	32.73	33.14	6
B. D. — 21° 4366	16 23 24.533	7	21 20 50.10	49.77	49.94	7
B. D. — 18° 4287	16 23 54.112	6	18 27 13.68	14.45	14.06	6
ω Ophiuchi	16 26 12.455	6	21 15 9.30	7.45	8.38	6
Lal. 30046	16 26 32.286	5	20 32 15.38	15.66	15.52	5
O. A. 15742	16 28 55.514	5	19 43 54.62	53.32	53.97	5
B. D. —18° 4295	16 29 41.298	6	18 27 55.73	56.08	55.90	6
O. A. 15773	16 31 41.196	5	21 51 9.62	9.50	9.56	5
Lal. 30207	16 32 19.802	5	—22 41 24.56	24.64	24.60	5
O. A. 15797	16 32 45.214	7	18 37 30.17	30.41	30.29	7
Mayer 671	16 34 40.756	5	20 12 49.10	47.50	48.30	5
Bradley 2115	16 36 0.922	6	19 43 57.77	56.68	57.22	6
O. A. 15868	16 37 5.416	5	21 9 7.60	6.78	7.19	5
15 Ophiuchi	16 39 7.748	6	22 59 52.20	52.33	52.26	6
Lal. 30551	16 43 37.128	5	21 40 35.34	34.78	35.06	5
24 Ophiuchi	16 50 46.101	16	22 59 29.53	29.25	29.39	16
η Ophiuchi	17 4 38.551	15	15 36 3.75	4.37	4.06	15
36 Ophiuchi	17 9 11.826	16	—26 27 22.39	22.33	22.36	15

NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.	NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.
			A.	B.	Mean.					A.	B.	Mean.	
	h m s		° ′ ″	″	″			h m s		° ′ ″	″	″	
ξ Ophiuchi.....	17 15 0.606	10	−21 0 19.56	19.32	19.44	10	O. A. 17753.....	18 4 42.206	5	-22 15 30.00	29.04	29.52	5
Lal. 31552......	17 17 1.008	5	20 7 6.04	6.10	6.07	5	1 Sagittarii.....	18 5 37.228	5	23 43 17.40	16.54	16.97	5
Mayer 701......	17 18 43.124	5	21 20 52.58	52.28	52.43	6	μ Sagittarii.....	18 7 46.986	5	21 5 6.25	4.52	5.38	5
Lal. 31733......	17 22 18.328	5	20 52 49.97	48.58	49.28	5	14 Sagittarii....	18 8 15.480	5	21 44 23.74	22.34	23.04	5
O. A. 16844.....	17 23 49.676	5	19 23 33.48	32.72	33.10	5	Lal. 33516......	18 10 27.668	5	23 56 2.46	1.72	2.09	5
C^2 Ophiuchi ...	17 25 18.833	6	23 53 7.77	6.57	7.17	6	Lal. 33591......	18 11 54.742	5	22 22 44.60	44.16	44.38	5
X Sagittarii	17 41 15.961	11	27 47 33.99	33.59	33.79	11	Lac. 7686.......	18 15 59.292	5	22 58 3.05	3.92	3.48	5
Mayer 722......	17 50 2.073	10	18 47 3.80	4.03	3.92	10	λ Sagittarii.....	18 21 47.995	10	25 28 36.67	36.91	36.79	10
Mayer 734......	18 1 11.498	5	21 27 14.92	14.50	14.71	5	Bradley 2335 . .	18 32 55.648	8	−21 8 4.78	4.20	4.49	9
C. Z. XVIII. 11 .	18 1 41.106	5	−23 6 58.25	59.22	58.74	5							

CATALOGUE

OF

EROS REFERENCE STARS.

NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.
			A.	B.	Mean.	
	h m s		° ′ ″	″	″	
B. D.+37° 480	2 0 9.188	4	+37 48 54.10	54.30	54.20	4
B. D.+38° 413	2 2 21.493	4	38 55 18.00	18.85	18.42	4
B. D.+38° 418	2 2 57.625	4	39 7 4.88	4.85	4.86	4
B. D.+37° 490	2 3 56.166	4	38 11 25.50	25.62	25.56	4
B. D.+36° 421	2 4 4.034	3	36 19 0.33	0.17	0.25	3
B. D.+37° 491	2 4 10.130	1	37 12 54.00	53.50	53.75	1
B. D.+36° 426	2 4 37.541	3	37 13 45.67	46.20	45.94	3
B. D.+38° 423	2 4 41.576	2	38 13 52.97	53.57	53.27	3
B. D.+38° 425	2 4 48.729	4	38 34 4.25	4.00	4.12	4
B. D.+36° 427	2 5 25.283	4	+36 52 52.52	51.55	52.04	4
B. D.+36° 428	2 5 53.368	3	+36 29 44.87	45.20	45.04	3
B. D.+38° 434	2 6 40.511	3	38 24 59.27	60.07	59.67	3
B. D.+36° 435	2 6 45.229	4	36 54 2.88	2.98	2.93	4
B. D.+37° 505	2 7 52.452	4	37 56 21.15	21.05	21.10	4
B. D.+36° 440	2 7 53.549	5	37 8 59.44	58.94	59.19	5
B. D.+37° 506	2 8 4.432	4	38 10 15.65	15.42	15.54	4
B. D.+37° 512	2 9 25.389	5	37 55 3.26	3.18	3.22	5
B. D.+36° 446	2 9 52.829	4	36 18 19.72	20.30	20.01	4
B. D.+36° 450	2 10 27.201	3	36 40 59.80	59.73	59.76	4
B. D.+37° 514	2 10 54.295	5	+37 40 56.84	57.12	56.98	5
B. D.+36° 453	2 11 8.334	3	+37 1 11.10	11.90	11.50	3
B. D.+37° 516	2 11 14.684	3	37 22 9.10	8.60	8.85	3
B. D.+37° 518	2 11 49.113	3	37 37 28.70	28.03	28.36	3
B. D.+36° 458	2 12 32.862	4	36 36 17.90	18.62	18.26	4
B. D.+36° 464	2 14 57.478	4	36 36 45.65	45.82	45.74	4
B. D.+36° 465	2 15 9.958	4	36 57 53.60	53.12	53.36	4
B. D.+36° 470	2 17 13.069	5	37 6 16.90	16.70	16.80	5
B. D.+36° 473	2 17 36.653	5	36 38 52.02	51.50	51.76	5
B. D.+36° 478	2 19 9.828	5	36 40 0.00	0.02	0.01	5
B. D.+35° 470	2 19 20.668	4	+35 31 8.75	9.45	9.10	4
B. D.+34° 432	2 19 25.224	3	+34 35 22.70	22.93	22.82	3
B. D.+36° 482	2 19 44.290	3	36 33 41.27	40.73	41.00	3
B. D.+34° 435	2 20 8.251	3	34 24 7.93	9.07	8.50	3
B. D.+34° 437	2 20 45.184	5	35 9 50.66	50.82	50.74	5
B. D.+36° 491	2 21 8.798	4	36 31 1.58	1.92	1.75	4
B. D.+35° 477	2 22 1.151	5	35 29 1.98	2.24	2.11	5
B. D.+34° 442	2 22 26.894	5	34 51 0.22	1.36	0.79	5
B. D.+35° 480	2 22 51.081	4	35 13 12.80	12 68	12.74	4
B. D.+35° 490	2 24 41.713	3	35 40 21.47	21.30	21.38	3
B. D.+33° 447	2 24 57.939	3	+33 54 56.07	56.13	56.10	3
B. D.+34° 448	2 25 4.074	3	+34 29 15.43	15.27	15.35	3
B. D.+35° 494	2 25 5.092	3	35 18 45.90	45.70	45.80	3
B. D.+34° 449	2 25 6.695	2	34 57 21.90	22.80	22.35	2
B. D.+35° 497	2 25 59.794	3	35 42 14.33	14.60	14.46	3
B. D.+34° 454	2 26 3.294	3	34 14 10.65	11.10	10.88	4
B. D.+34° 457	2 26 29.211	3	34 49 18.00	18.30	18.15	3
B. D.+33° 454	2 26 50.231	4	34 6 5.08	5.02	5.05	4
B. D.+33° 461	2 28 12.649	4	33 21 10.90	11.25	11.08	4
B. D.+34° 462	2 28 12.881	3	34 42 41.98	42.25	42.12	4
B. D.+33° 462	2 28 31.033	4	+33 28 32.60	32.32	32.46	4
B. D.+33° 463	2 28 40.224	4	+33 38 41.75	41.68	41.72	4
B. D.+34° 469	2 29 42.518	4	34 15 6.02	6.60	6.31	4
B. D.+34° 471	2 29 45.969	4	34 17 18.70	18.58	18.64	4
B. D.+34° 476	2 31 44.767	5	34 43 42.20	42.40	42.30	5
B. D.+33° 476	2 32 30.133	4	33 56 2.90	2.08	2.49	4
B. D.+34° 483	2 32 41.138	4	34 50 21.98	23.35	22.66	4
B. D.+32° 478	2 32 43.492	4	32 59 11.98	11.03	11.50	4
B. D.+32° 483	2 33 45.634	3	33 3 53.57	53.40	53.48	3
B. D.+33° 481	2 33 46.952	4	33 31 5.98	6.42	6.20	4
B. D.+32° 484	2 33 49.578	4	+32 23 3.02	1.50	2.26	4

NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.
			A.	B.	Mean.	
	h m s		° ′ ″	″	″	
B. D.+34° 488	2 34 24.738	4	+34 51 29.72	30.82	30.27	4
B. D.+34° 492	2 34 51.654	3	34 24 27.30	27.87	27.58	3
B. D.+33° 493	2 36 31.054	5	33 20 25.32	25.52	25.42	5
B. D.+32° 490	2 36 38.451	5	32 28 33.42	32.18	32.80	5
B. D.+33° 494	2 37 16.709	5	33 44 53.58	53.70	53.64	5
B. D.+32° 498	2 39 4.253	4	32 19 50.95	50.92	50.94	4
B. D.+31° 477	2 40 19.038	4	31 34 28.50	28.05	28.28	4
B. D.+33° 512	2 41 27.392	4	33 13 2.68	1.82	2.25	4
B. D.+32° 508	2 43 1.123	5	32 25 42.22	41.80	42.01	5
B. D.+32° 507	2 43 1.147	5	+32 45 33.30	33.16	33.23	5
B. D.+31° 483	2 43 9.541	4	+31 41 47.75	45.85	46.80	4
B. D.+31° 490	2 44 23.244	4	31 33 35.32	35.05	35.18	4
B. D.+31° 493	2 44 56.032	4	31 57 2.62	1.86	2.24	5
B. D.+32° 517	2 45 56.822	4	32 19 48.00	47.74	47.87	5
B. D.+31° 497	2 47 21.906	5	31 14 8.86	8.56	8.71	5
B. D.+32° 522	2 47 34.724	5	32 30 33.65	34.00	33.82	6
B. D.+31° 500	2 48 4.372	4	31 55 44.48	43.58	44.03	4
B. D.+30° 464	2 49 39.382	5	30 38 14.94	13.88	14.41	5
B. D.+30° 465	2 49 50.585	5	31 10 30.42	30.02	30.22	5
B. D.+30° 466	2 50 30.066	4	+30 28 34.75	33.02	33.88	4
B. D.+31° 509	2 51 13.002	4	+31 31 55.20	53.70	54.45	4
B. D.+30° 469	2 51 58.190	4	31 6 53.92	53.02	53.47	4
B. D.+31° 511	2 52 5.658	3	31 36 56.73	55.57	56.15	3
B. D.+31° 512	2 52 12.866	4	32 3 28.18	26.92	27.55	4
B. D.+30° 474	2 53 52.573	4	30 12 28.55	26.92	27.74	4
B. D.+30° 477	2 54 13.484	4	30 43 41.10	40.22	40.66	4
B. D.+29° 508	2 54 24.949	4	30 10 18.80	17.80	18.30	4
B. D.+31° 524	2 55 10.459	5	31 33 31.52	30.46	30.99	5
B. D.+30° 479	2 56 6.797	3	30 35 30.98	28.95	29.96	4
B. D.+29° 517	2 57 39.151	4	+30 7 9.20	7.70	8.45	4
B. D.+30° 482	2 58 31.605	4	+30 55 11.58	10.68	11.13	4
B. D.+30° 484	2 58 51.317	5	30 38 56.00	55.34	55.67	5
B. D.+28° 488	2 59 18.277	5	29 9 11.00	9.68	10.34	5
B. D.+29° 519	2 59 41.096	4	30 8 17.90	16.45	17.18	4
B. D.+29° 522	3 0 48.088	4	30 8 29.65	28.48	29.06	4
B. D.+28° 493	3 1 16.414	4	28 44 15.28	14.28	14.78	4
B. D.+28° 499	3 3 35.641	5	28 41 44.02	42.06	43.04	5
B. D.+30° 494	3 3 42.931	4	31 0 60.15	58.72	59.44	4
B. D.+29° 531	3 4 13.749	5	29 17 6.86	5.80	6.33	5
B. D.+29° 534	3 5 54.238	4	+29 27 15.12	13.58	14.35	4
B. D.+30° 503	3 6 50.765	5	+30 28 38.72	37.54	38.13	5
B. D.+28° 507	3 7 34.936	4	28 51 27.82	27.02	27.42	4
B. D.+28° 511	3 11 1.821	5	28 23 26.06	24.46	25.26	5
B. D.+27° 488	3 11 2.093	4	28 6 60.88	59.25	60.06	4
B. D.+28° 514	3 12 24.816	4	28 20 49.55	49.18	49.36	4
B. D.+27° 492	3 13 37.989	5	27 10 42.30	42.36	42.33	5
B. D.+28° 516	3 14 17.176	5	28 41 9.66	8.56	9.11	5
B. D.+28° 517	3 14 36.947	5	28 27 58.38	56.86	57.62	5
B. D.+27° 500	3 16 11.540	5	27 14 55.12	54.82	54.97	5
B. D.+27° 501	3 16 58.036	4	+27 19 44.28	43.30	43.79	4
B. D.+26° 548	3 17 6.079	5	+26 32 38.46	36.82	37.64	5
B. D.+26° 550	3 17 32.426	4	27 2 44.50	43.25	43.88	4
B. D.+28° 526	3 18 45.514	5	28 17 59.08	58.00	58.54	5
B. D.+28° 532	3 20 31.308	4	28 21 60.55	58.38	59.46	4
B. D.+27° 509	3 21 36.609	4	27 24 10.50	9.68	10.09	4
B. D.+26° 565	3 24 19.683	3	26 40 48.00	47.80	47.90	3
B. D.+27° 513	3 24 58.269	4	27 22 55.72	55.02	55.37	4
B. D.+26° 566	3 25 0.780	3	26 46 15.38	13.88	14.63	4
B. D.+27° 514	3 25 0.954	4	27 23 23.02	22.75	22.88	4
B. D.+27° 515[1]	3 25 17.624	3	+27 13 49.97	49.93	49.95	3

NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.	NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.
			A.	B.	Mean.					A.	B.	Mean.	
	h m s		° ′ ″	″	″			h m s		° ′ ″	″	″	
B. D.+27° 515[2]	3 25 18.471	3	+27 13 50.63	50.00	50.32	3	B. D.+22° 637[2]	4 2 56.375	5	+22 49 59.04	59.48	59.26	5
B. D.+27° 519	3 26 33.628	4	28 1 35.02	33.68	34.35	4	B. D.+23° 632	4 4 17.453	4	23 43 6.32	6.38	6.35	4
B. D.+26° 572	3 28 57.126	4	26 16 23.38	23.43	23.40	4	B. D.+21° 601	4 5 14.131	4	21 37 26.78	27.15	26.96	4
B. D.+26° 574	3 29 19.102	4	26 30 59.08	58.08	58.58	4	B. D.+23° 642	4 6 26.469	5	23 19 0.70	1.14	0.92	5
B. D.+27° 525	3 29 20.767	3	27 11 28.63	27.80	28.22	3	B. D.+23° 645	4 6 48.003	4	23 15 48.52	48.90	48.71	4
B. D.+27° 526	3 29 22.534	4	27 30 45.90	46.18	46.04	4	B. D.+22° 649	4 6 55.393	4	22 9 22.85	23.40	23.12	4
B. D.+27° 529	3 30 1.573	4	27 15 37.45	36.30	36.88	4	B. D.+22° 654	4 8 2.264	3	22 27 11.63	12.13	11.88	3
B. D.+26° 579	3 30 5.974	3	27 0 40.60	40.17	40.38	3	B. D.+22° 657	4 8 33.595	4	22 11 56.30	55.52	55.91	4
B. D.+25° 580	3 31 9.935	4	25 40 3.02	3.83	3.42	4	B. D.+23° 650	4 8 34.678	3	23 7 25.07	25.10	25.08	3
B. D.+25° 584	3 33 29.052	4	+25 48 5.14	4.10	4.62	5	B. D.+21° 610	4 9 17.866	4	+21 50 41.50	42.45	41.98	4
B. D.+26° 590	3 33 29.630	5	+26 53 47.76	46.82	47.29	5	B. D.+22° 663	4 10 3.498	3	+22 43 0.40	0.60	0.50	3
Anonymous . . .	3 34 7.080	1	26 34 15.60	13.80	14.70	1	B. D.+21° 612	4 10 37.732	4	21 39 33.20	33.05	33.12	4
B. D.+26° 596	3 34 11.942	3	26 33 46.53	46.20	46.36	3	B. D.+22° 665	4 10 52.848	3	23 5 27.53	27.77	27.65	3
B. D.+24° 533	3 35 20.219	4	24 41 4.02	5.30	4.66	5	B. D.+21° 617	4 11 54.959	4	22 6 28.72	29.30	29.01	4
B. D.+24° 534	3 35 42.891	5	25 2 54.88	54.82	54.85	4	B. D.+21° 618	4 12 28.031	4	21 20 5.48	6.00	5.74	4
B. D.+26° 601	3 36 27.662	4	26 15 12.30	11.23	11.76	4	B. D.+20° 731	4 13 7.127	3	21 3 23.23	24.47	23.85	3
B. D.+25° 593	3 37 7.204	3	25 21 45.73	45.40	45.56	3	B. D.+20° 733	4 13 32.353	4	20 54 1.90	2.60	2.25	4
B. D.+25° 598	3 37 38.627	3	25 48 29.67	29.00	29.34	3	B. D.+21° 623	4 13 41.451	3	21 31 55.50	54.87	55.18	3
B. D.+25° 597	3 37 38.911	3	25 27 10.43	10.37	10.40	3	B. D.+20° 740	4 15 37.451	5	20 48 9.00	8.64	8.82	5
B. D.+24° 537	3 37 44.714	3	+24 45 51.10	51.53	51.32	3	B. D.+20° 741	4 15 41.356	4	+20 56 59.08	59.75	59.42	4
B. D.+25° 599	3 37 44.788	3	+26 3 48.77	48.97	48.87	3	B. D.+20° 744	4 16 29.718	4	+20 35 6.18	6.45	6.32	4
B. D.+25° 600	3 37 52.781	3	25 24 37.33	38.60	37.96	3	B. D.+21° 635	4 17 27.180	4	21 8 44.12	44.48	44.30	4
B. D.+24° 546	3 39 11.629	3	24 31 31.50	31.63	31.56	3	B. D.+20° 751	4 17 38.734	4	20 44 56.30	57.55	56.92	4
B. D.+26° 608	3 39 12.041	3	26 34 39.87	39.30	39.58	3	B. D.+21° 639	4 18 6.057	3	21 18 28.13	28.17	28.15	3
B. D.+24° 547	3 39 15.203	3	24 9 12.70	12.50	12.60	4	B. D.+21° 641	4 18 18.281	3	21 30 17.40	17.57	17.48	3
B. D.+25° 607	3 39 32.978	3	25 17 50.03	51.07	50.55	3	B. D.+21° 642	4 19 24.488	4	22 3 54.92	53.82	54.37	4
B. D.+24° 553	3 39 56.898	4	24 14 31.68	32.55	32.12	4	B. D.+21° 643	4 19 27.478	4	21 58 16.35	16.52	16.44	4
B. D.+25° 611	3 39 58.288	3	25 45 49.13	48.73	48.93	3	B. D.+20° 754	4 19 53.560	4	20 54 30.70	31.25	30.98	4
B. D.+24° 562	3 41 1.743	4	24 12 36.35	36.45	36.40	4	B. D.+21° 644	4 20 22.800	4	21 14 37.20	37.75	37.48	4
B. D.+24° 568	3 41 47.074	4	+25 4 38.02	38.72	38.37	4	B. D.+20° 756	4 21 13.468	3	+20 45 58.40	59.03	58.72	3
B. D.+24° 571	3 42 8.003	4	+24 40 47.05	47.92	47.48	4	B. D.+21° 647	4 22 4.565	4	+21 23 49.35	49.08	49.22	4
B. D.+26° 617	3 42 16.538	3	26 16 50.18	49.28	49.73	4	B. D.+20° 760	4 22 44.331	4	20 36 35.78	35.88	35.83	4
B. D.+25° 620	3 42 41.104	3	25 29 34.47	34.30	34.38	3	B. D.+19° 727	4 22 45.538	3	19 31 7.38	7.58	7.48	4
B. D.+23° 561	3 43 24.092	4	24 4 32.55	33.68	33.12	4	B. D.+20° 761	4 22 48.896	4	20 27 18.28	18.35	18.32	4
B. D.+23° 562	3 43 28.626	4	23 56 32.85	33.38	33.12	4	B. D.+19° 731	4 24 25.928	4	19 37 21.30	20.88	21.09	4
B. D.+25° 624	3 44 18.116	4	25 16 39.95	39.42	39.68	4	B. D.+19° 733	4 25 22.778	4	19 55 2.95	3.02	2.98	4
B. D.+24° 578	3 44 29.954	3	24 11 30.77	30.20	30.48	3	B. D.+20° 772	4 25 45.608	3	20 34 4.97	4.53	4.30	3
B. D.+23° 570	3 44 55.511	4	23 39 32.42	32.75	32.58	4	B. D.+21° 657	4 26 11.991	4	21 25 3.25	4.18	3.72	4
B. D.+25° 627	3 45 17.289	4	26 3 7.88	6.75	7.32	4	B. D.+19° 735	4 27 10.316	4	19 8 10.72	10.15	10.44	4
B. D.+24° 583	3 45 25.700	3	+24 51 39.27	39.40	39.34	3	B. D.+19° 736	4 27 31.751	4	+19 36 7.82	6.58	7.20	4
B. D.+25° 631	3 45 55.518	3	+25 41 56.57	55.83	56.20	3	B. D.+20° 778	4 28 51.781	4	+20 53 44.05	44.38	44.22	4
B. D.+24° 587	3 46 12.511	4	24 52 0.35	0.08	0.22	4	B. D.+19° 740	4 29 47.914	3	19 45 48.07	48.53	48.30	3
B. D.+24° 589	3 46 54.518	3	24 25 4.03	4.60	4.32	3	B. D.+19° 742	4 29 50.776	4	19 40 30.82	30.28	30.55	4
B. D.+25° 637	3 47 6.626	4	25 14 13.08	12.70	12.89	4	B. D.+19° 744	4 30 43.086	4	19 33 18.75	18.00	18.38	4
B. D.+25° 639	3 47 28.146	4	25 38 16.50	16.50	16.50	4	B. D.+19° 745	4 30 51.331	3	19 17 22.13	21.20	21.66	3
B. D.+25° 641	3 47 33.066	4	25 23 9.28	9.22	9.25	4	B. D.+20° 785	4 32 21.817	5	20 29 1.54	1.68	1.61	5
B. D.+23° 584	3 49 4.546	4	23 39 45.25	45.92	45.58	4	B. D.+18° 666	4 32 41.737	5	18 31 60.34	59.22	59.78	5
B. D.+24° 595	3 49 7.551	5	24 48 40.60	40.74	40.67	5	B. D.+19° 755	4 35 42.491	3	20 4 13.75	13.80	13.78	4
B. D.+23° 586	3 49 50.816	4	23 32 9.50	9.30	9.40	4	B. D.+19° 759	4 35 51.270	3	19 53 44.27	44.10	44.18	3
B. D.+23° 589	3 50 40.768	4	+23 18 14.32	14.50	14.41	4	B. D.+18° 684	4 37 1.359	4	+18 31 57.08	55.88	56.48	4
B. D.+24° 598	3 51 10.984	4	+24 59 30.88	31.12	31.00	4	B. D.+19° 774	4 39 43.443	3	+19 8 38.17	37.27	37.72	3
B. D.+24° 599	3 51 27.568	4	24 10 19.35	19.40	19.38	4	B. D.+18° 717	4 40 15.081	3	18 37 3.75	2.50	3.12	4
B. D.+23° 594	3 52 22.671	3	23 47 38.93	39.40	39.16	3	B. D.+18° 719	4 40 26.452	3	18 33 14.27	12.93	13.60	3
B. D.+23° 600	3 53 6.388	4	23 20 27.90	29.08	28.49	4	B. D.+19° 777	4 40 44.123	3	19 18 44.10	43.60	43.85	3
B. D.+24° 602	3 53 13.089	4	24 55 47.52	47.03	47.28	4	B. D.+18° 725	4 41 3.991	3	18 53 56.40	57.30	56.85	3
B. D.+24° 605	3 53 54.468	4	24 24 42.53	42.92	42.72	4	B. D.+18° 727	4 41 17.818	3	18 18 28.10	26.60	27.35	3
B. D.+22° 612	3 53 57.243	4	22 56 0.70	1.15	0.92	4	B. D.+19° 782	4 41 51.353	3	19 8 23.03	21.97	22.50	3
B. D.+22° 613	3 54 11.384	3	23 6 56.30	55.97	56.14	3	B. D.+17° 789	4 42 47.550	3	17 37 49.38	48.50	48.94	4
B. D.+22° 615	3 54 34.939	4	22 32 29.05	28.38	28.72	4	B. D.+18° 734	4 42 50.806	4	18 32 34.40	32.77	33.58	4
B. D.+22° 617[1]	3 55 0.373	4	+22 55 11.50	11.78	11.64	4	B. D.+18° 738	4 44 27.319	4	+19 1 10.02	9.90	9.96	4
B. D.+22° 617[2]	3 55 0.818	4	+22 55 7.13	7.12	7.12	4	B. D.+17° 791	4 44 32.123	4	+17 20 53.10	52.72	52.91	5
B. D.+23° 606	3 57 48.874	4	24 7 31.52	32.32	31.92	4	B. D.+18° 743	4 45 31.391	5	18 40 10.80	9.90	10.35	4
B. D.+23° 609	3 58 22.730	4	23 49 50.45	50.60	50.52	4	B. D.+17° 797	4 46 3.298	4	17 31 16.35	15.95	16.15	4
B. D.+23° 611	3 58 52.398	4	23 14 5.38	5.85	5.62	4	*B. D.+17° 800	. .. .	.	.. ..	.....	.....	.
B. D.+23° 613	3 59 17.069	4	23 31 25.32	26.08	25.70	4	B. D.+18° 747	4 47 44.306	4	18 54 25.52	25.66	25.59	5
B. D.+22° 629	3 59 27.228	4	22 53 45.30	44.50	44.90	4	B. D.+19° 811	4 49 5.591	4	19 19 24.08	23.75	23.92	4
B. D.+23° 617	4 0 39.589	4	23 14 51.85	52.05	51.95	4	B. D.+18° 754	4 49 19.934	3	18 16 48.30	47.77	48.04	3
B. D.+21° 593	4 2 20.119	4	21 45 16.32	16.57	16.44	4	B. D.+17° 814	4 50 41.286	4	17 50 42.92	43.28	43.10	4
B. D.+23° 624	4 2 52.458	4	23 36 19.45	19.65	19.55	4	B. D.+16° 671	4 51 1.855	4	16 34 36.95	36.80	36.88	4
B. D.+22° 637[1]	4 2 56.292	4	+22 49 53.38	53.62	53.50	4	B. D.+16° 672	4 51 35.728	5	+16 59 48.00	47.64	47.82	5

*Too faint for observation.

NAME.	RIGHT ASCENSION 1900.0	NO. OBS.	DECLINATION 1900.0			NO. OBS.
			A.	B.	Mean.	
	h m s		° ′ ″	″	″	
B. D.+18° 765	4 52 30.146	4	+18 50 19.38	18.40	18.89	4
B. D.+16° 679	4 54 6.911	5	16 40 40.98	40.72	40.85	5
B. D.+16° 685	4 56 8.492	4	16 41 12.72	12.35	12.54	4
B. D.+16° 688	4 58 17.818	4	16 59 5.95	4.95	5.45	4
B. D.+18° 777	4 59 0.288	5	18 6 53.84	52.46	53.15	5
B. D.+17° 841	5 0 28.780	4	17 40 51.33	51.00	51.16	4
B. D.+16° 697	5 1 14.733	6	16 41 41.45	39.97	40.71	6
B. D.+16° 700	5 2 11.338	4	16 50 52.60	52.35	52.48	4
B. D.+15° 749	5 2 21.641	4	15 43 26.40	25.68	26.04	4
B. D.+15° 752	5 3 58.501	6	+15 28 10.35	10.48	10.42	6
B. D.+17° 862	5 4 51.968	4	+17 18 52.30	51.60	51.95	4
B. D.+16° 715	5 5 4.411	4	16 18 33.78	33.75	33.76	4
B. D.+15° 759	5 5 56.902	4	15 55 20.45	20.40	20.42	4
B. D.+16° 721	5 6 6.384	3	16 37 11.57	11.30	11.44	3
B. D.+17° 867	5 6 24.093	3	17 8 26.40	25.87	26.14	3
B. D.+17° 869	5 6 42.384	3	17 5 32.57	31.63	32.10	3
B. D.+16° 732	5 7 28.409	5	16 45 53.86	52.26	53.06	5
B. D.+16° 735	5 8 33.838	5	16 33 42.84	42.20	42.52	5
B. D.+15° 769	5 9 42.116	4	15 30 56.30	57.02	56.66	4
B. D.+16° 741	5 10 55.287	5	+16 54 32.32	32.28	32.30	5
B. D.+16° 742	5 11 20.017	5	+16 14 31.44	31.22	31.33	5
B. D.+15° 779	5 11 25.018	4	15 9 14.42	14.45	14.44	4
B. D.+15° 787	5 13 54.788	4	15 40 54.00	54.00	54.00	4
B. D.+15° 789	5 14 18.546	4	16 1 6.68	6.48	6.58	4
B. D.+14° 881	5 14 53.276	4	14 57 27.55	27.35	27.45	4
B. D.+15° 790	5 14 59.278	3	15 32 8.00	7.13	7.56	3
B. D.+15° 795	5 15 54.813	4	15 44 56.05	56.98	56.52	4
B. D.+15° 797	5 16 14.836	4	15 59 38.40	37.95	38.18	4
B. D.+15° 799	5 16 38.221	4	+16 1 34.70	33.30	34.00	4
B. D.+15° 805	5 17 46.677	5	+15 56 44.94	44.32	44.63	5
B. D.+15° 809	5 19 22.239	4	15 16 14.98	14.98	14.98	4
B. D.+15° 810	5 19 54.048	4	15 29 27.85	27.92	27.88	4
B. D.+15° 813	5 20 10.716	4	15 21 53.28	52.20	52.74	4
B. D.+15° 814	5 20 18.496	4	15 34 59.25	59.82	59.54	4
B. D.+15° 822	5 21 30.748	4	15 10 17.58	17.98	17.78	4
B. D.+14° 914	5 21 59.551	4	14 3 2.92	3.05	2.98	4
B. D.+15° 826	5 22 0.783	4	15 47 22.50	22.80	22.65	4
B. D.+14° 917	5 22 9.751	4	+14 55 50.05	50.20	50.12	4
B. D.+15° 837	5 24 42.707	5	+15 16 59.06	59.22	59.14	5
B. D.+14° 933	5 25 48.648	3	14 34 7.18	7.32	7.25	4
B. D.+14° 934	5 25 53.203	4	14 51 11.72	12.18	11.95	4
B. D.+14° 939	5 27 4.094	3	14 8 55.30	55.37	55.34	3
B. D.+15° 851	5 27 23.874	3	15 52 32.93	31.63	32.28	3
B. D.+14° 947	5 28 13.261	3	14 14 9.20	8.80	9.00	3
B. D.+15° 856	5 28 16.191	3	15 30 54.98	55.32	55.15	4
B. D.+14° 948	5 28 19.523	3	14 25 15.40	15.13	15.26	3
B. D.+13° 922	5 28 50.578	3	+13 56 6.33	6.33	6.33	3
B. D.+13° 927	5 29 27.158	3	+13 20 44.53	46.20	45.36	3
B. D.+13° 930	5 29 41.604	3	13 13 11.30	10.57	10.94	3
B. D.+14° 958	5 30 46.015	5	14 35 38.30	38.40	38.35	5
B. D.+14° 959	5 31 0.636	4	14 9 49.88	50.20	50.04	4
B. D.+14° 973	5 33 25.891	4	14 29 56.70	57.10	56.90	4
B. D.+14° 978	5 34 5.558	4	14 44 37.04	37.38	37.21	5
B. D.+13° 954	5 35 50.702	4	13 5 48.95	48.90	48.92	4
B. D.+13° 957	5 36 31.196	4	13 32 31.50	31.30	31.40	4
B. D.+14° 991	5 37 17.541	3	14 7 50.22	50.02	50.12	4
B. D.+13° 964	5 37 23.586	4	+13 5 48.92	48.68	48.80	4
B. D.+14° 998	5 37 50.131	4	+14 21 51.85	51.50	51.68	4
B. D.+12° 880	5 38 28.268	3	12 40 21.93	23.10	22.52	3
B. D.+12° 882	5 39 4.743	4	12 22 20.62	19.95	20.28	4
B. D.+12° 884	5 39 23.651	4	12 50 43.70	44.16	43.93	5
B. D.+13° 971	5 39 23.782	4	13 31 59.90	60.20	60.05	4
B. D.+12° 896	5 41 35.132	4	12 18 8.44	9.00	8.72	5
B. D.+12° 899	5 41 51.899	5	12 13 15.30	15.48	15.39	5
B. D.+13° 979	5 42 2.626	5	13 51 48.02	47.74	47.88	5
B. D.+12° 910	5 43 36.242	4	12 7 5.28	5.88	5.58	4
B. D.+13° 988	5 43 45.383	5	+13 53 22.88	22.96	22.92	5
B. D.+12° 912	5 43 55.859	4	+12 37 11.44	11.52	11.48	5
B. D.+12° 925	5 46 37.596	4	12 51 10.32	10.62	10.47	4
B. D.+12° 927	5 46 50.190	3	12 18 21.67	22.27	21.97	3
B. D.+11° 960	5 47 37.355	3	11 47 38.62	38.92	38.77	4
B. D.+12° 937	5 48 22.171	3	12 24 19.90	20.30	20.10	3
B. D.+12° 941	5 48 29.067	3	12 2 35.30	35.60	35.45	3
B. D.+11° 964	5 48 56.960	3	11 44 40.63	41.07	40.85	3
B. D.+11° 965	5 49 1.952	3	11 27 59.63	60.07	59.85	3
B. D.+12° 946	5 49 37.960	3	+12 52 38.40	38.50	38.45	3
B. D.+12° 950	5 50 0.745	3	+12 59 4.52	4.95	4.74	4
B. D.+11° 970	5 50 2.943	4	11 47 32.95	33.02	32.98	4
B. D.+12° 963	5 52 27.358	4	12 52 14.55	14.52	14.54	4
B. D.+12° 965	5 52 44.212	4	12 58 39.88	40.55	40.22	4
B. D.+12° 968	5 53 15.655	3	12 47 55.12	55.55	55.34	4
B. D.+11° 986	5 53 45.454	3	11 45 16.87	17.67	17.27	3
B. D.+12° 975	5 53 50.877	3	12 27 46.17	47.50	46.84	3
B. D.+12° 980	5 54 39.989	4	12 36 20.12	20.35	20.24	4
B. D.+11° 995	5 54 59.115	4	+11 59 2.55	2.68	2.62	4
B. D.+11°1002	5 56 29.906	4	+11 39 19.32	19.60	19.46	4
B. D.+12° 994	5 57 1.512	4	12 40 15.28	15.80	15.54	4
B. D.+11°1005	5 57 9.297	3	11 5 33.73	33.37	33.55	3
B. D.+11°1007	5 57 44.072	4	11 8 14.85	14.88	14.86	4
B. D.+11°1009	5 57 49.912	3	11 40 57.45	57.72	57.58	4
B. D.+11°1022	6 0 7.366	4	11 13 36.22	36.92	36.57	4
B. D.+11°1032	6 2 3.531	4	11 1 10.58	10.95	10.76	4
B. D.+11°1038	6 2 47.844	4	11 24 39.60	39.38	39.49	4
B. D.+12°1032	6 3 7.203	4	+12 17 42.60	43.10	42.85	4

PART V.

OBSERVATIONS

WITH THE

PRIME VERTICAL TRANSIT INSTRUMENT.

1882-1884.

BY

LIEUTENANT R. R. INGERSOLL, U. S. N.,
LIEUTENANT C. G. BOWMAN, U. S. N.,
AND
ENSIGN H. TAYLOR, U. S. N.

INTRODUCTION.

By W. S. EICHELBERGER.

These observations were commenced in the autumn of 1882 and continued until the summer of 1884. The observers were as follows:

Lieut. R. R. INGERSOLL, U. S. Navy, to August 20, 1883,
Lieut. C. G. BOWMAN, U. S. Navy,
Ensign H. TAYLOR, U. S. Navy, from June 30, 1883.

For the most part the reductions were made by the observers. In 1892 this work was completed under the direction of Prof. S. J. BROWN, U. S. Navy, and the results published in the Astronomical Journal, Nos. 263 and 264. In preparing the work for printing in this volume, the times of transit have been checked by computing the time of meridian passage from them. A number of errors were found in this way and corrected, while a number of discordant transits were rejected. The reductions were carefully examined and checked whenever there were no clear indications of this having been done.

The azimuth of the instrument has been computed from observations of α Lyræ on thirty-three days, and the results are given in Table III.

The following extract is taken from the Report of the Superintendent of the Naval Observatory, October 22, 1883:

PRIME VERTICAL INSTRUMENT.

This instrument is in charge of Lieut. C. G. BOWMAN, assisted by Ensign H. TAYLOR. Observations with it were recommenced November 14, 1882. The first observations were by the "eye and ear" method, but since December 2 they have been recorded chronographically, using HOWARD clock No. 627 and a BOND chronograph. The error and rate of the observing clock have been determined by chronographic comparisons with the east transit clock, not only during each set of observations, but as near as might be at the time of the determination of its error by observations with the east transit. The HOWARD clock has maintained constantly a small and very regular rate. The azimuth and collimation of the instrument were reduced to small amounts from the early observations, and have not since materially changed. The pivots were found to be in good condition and very slightly unequal, the effect of which, however, is eliminated by a reversal of the instrument during observation. The level used is one furnished for the instrument by WÜRDEMANN. The level has been reversed with the instrument, four careful readings being taken immediately before commencing the observations and four others immediately after completing it on each vertical. Continuous observations have been restricted to about forty stars, in no case exceeding 2° zenith distance when on the meridian; and these, with one exception, have been closely confined to the time of the two maxima of aberration. The one exception referred to was in the case of α Lyræ, which has been regularly observed throughout the twenty-four hours, having in view the possibility of a determination of its absolute parallax. * * * In the reductions, W. STRUVE'S formulæ have been used, and the labor has been greatly lessened by the use of OTTO STRUVE'S auxiliary tables for the prime vertical transit.

The object-glass has an aperture of 4.85 inches and a focal length of 78 inches. The telescope was attached to one extremity of an axis 42 inches long, the other extremity of which carried a counterpoise. The pivots of the axis were hollow cylinders of fine steel, 3.5 inches in diameter. The telescope and its counterpoise were outside of the supporting pier, but their weights were transferred to the bearing points of the Y's by levers and counterpoises within the pivots and axis. The instrument having been out of use for fifteen years, was thoroughly cleaned and repaired by Mr. W. F. GARDNER, instrument maker of the Observatory.

Before March 17, 1883, the reticule contained 13 vertical threads on each side of the middle one. On the date mentioned the number was increased to 15 by inserting on each side, one between III and IV, and one between IV and V. The two wires on each side most distant from the center, formerly called I and II, were afterwards called A and B; the old III became I; the old IV, III, the two new ones being II and IV. In general the transits were taken only over threads I to XIII, and when either A or B is used the fact is noted under *Remarks*.

A quite extensive investigation of the value of one division of the spirit level led to the adoption of a value depending upon the length of the bubble used.

The observations have been corrected for the rate of the clock, but no correction has been applied for azimuth.

The reductions to mean place were computed by the use of BESSELIAN star-constants and star-numbers, the latter being taken for each observation from the tables of the American Ephemeris for the time of the star's transit over the meridian. No allowance has been made for proper motion.

The adopted latitude of the piers is

$$+38^\circ\ 53'\ 38''.34$$

At the end of this introduction may be found the following tables:

Table I.—The Adopted Value of One Division of the Level.
Table II.—The Positions of the Stars Used in Computing Reductions to 1883.0
Table III.—The Azimuth of the Instrument from Observations of α Lyræ.
Table IV.—The Adopted Clock Corrections and Rates.

EXPLANATION OF THE PRINTED PAGES E 3–E 121.

On the left-hand page—

The first column gives the astronomical date of the star's meridian passage.

The second column gives the vertical at which the transits were taken. When no designation appears, the one on the line above is understood.

The third column gives the position of the telescope north or south of the pier.

The remaining columns give the times of transit over the different threads. When the minutes and seconds are wanting in the fourth column, the hours there given belong to the minutes and seconds that first appear to the right.

On the right-hand page—

The first column gives the name of the star.

The second column gives the sum of the readings of the north end of the spirit-level bubble for each position of the instrument. Four such readings in general were made during each complete transit.

The third column gives for the south end of the spirit-level bubble what the second column does for the north end.

The fourth column gives the mean inclination of the axis of the telescope for the two positions of the instrument at each vertical in divisions of the spirit level.

The fifth column gives the correction to the declination arising from the inclination of the axis.

The sixth column gives the apparent declination corrected for the rate of the clock and for the inclination of the axis of the telescope, but not corrected for azimuth.

The seventh column gives the reduction to 1883.0

The eighth column gives the mean declination for 1883.0

The ninth column gives the initial of the observer:

B. = BOWMAN,
I. = INGERSOLL,
T. = TAYLOR.

The tenth column gives general remarks on the seeing, the observations, and the instrument.

TABLE I.—*The Adopted Value of One Division of the Level.*

Length of Bubble.	One Division.	Length of Bubble.	One Division.	Length of Bubble.	One Division.
d	″	d	″	d	″
10	1.0871	60	1.0321	110	0.9773
15	1.0816	65	1.0267	115	0.9718
20	1.0761	70	1.0212	120	0.9662
25	1.0706	75	1.0157	125	0.9607
30	1.0651	80	1.0102	130	0.9553
35	1.0596	85	1.0047	135	0.9498
40	1.0541	90	0.9992	140	0.9443
45	1.0486	95	0.9937	145	0.9388
50	1.0431	100	0.9883	150	0.9333
55	1.0376	105	0.9828	155	0.9278
60	1.0321	110	0.9773	160	0.9223

TABLE II.—*The Positions of the Stars Used in Computing Reductions to 1883.0*

Name.	Right Ascension 1883.0			Declination 1883.0		
	h	m	s	°	′	″
32 Andromedæ	0	34	46.75	+38	48	58.20
μ Andromedæ	0	50	15.76	37	51	51.96
59 Andromedæ	2	3	47.16	38	29	11.60
B. A. C. 662	2	3	48.00	38	29	25.42
ρ Persei	2	57	40.85	38	23	9.26
50 Persei	4	0	48.83	37	43	55.97
μ Aurigæ	5	5	25.34	38	20	39.52
θ Aurigæ	5	51	44.61	37	12	10.39
40 Aurigæ	5	58	31.22	38	29	29.58
60 Aurigæ	6	45	11.87	38	34	56.76
65 Aurigæ	7	14	13.51	36	58	44.99
Groombridge 1450	8	25	18.45	38	24	58.68
38 Lyncis	9	11	33.66	37	17	48.48
Lalande 18362	9	13	39.40	38	40	57.95
10 Leonis Minoris	9	27	3.21	36	54	58.46
31 Leonis Minoris	10	21	6.92	37	18	22.73
38 Leonis Minoris	10	32	26.62	38	31	9.95
B. A. C. 4311	12	44	37.04	38	9	13.36
B. A. C. 4407	13	4	15.09	38	2	48.66
17 H. Canum Venaticorum	13	29	34.28	37	46	55.62
γ Bootis	14	27	21.99	38	49	13.73
25 Herculis	16	21	14.13	37	39	39.89
π Herculis	17	10	58.33	36	56	29.59
e Herculis	17	13	37.9	37	24	52.66
θ Herculis	17	52	14.41	37	15	59.95
α Lyræ	18	32	58.64	38	40	31.55
B. A. C. 6365	18	36	14.4	38	15	32.44
ξ¹ Lyræ	18	40	44.53	37	29	0.05
θ Lyræ	19	12	18.40	37	55	33.08
22 Cygni	19	51	40.86	38	10	34.57
40 Cygni	20	23	14.2	38	3	23.58
τ Cygni	21	10	7.27	37	32	47.12
72 Cygni	21	29	59.9	38	0	35.23
1 Lacertæ	22	10	52.29	37	9	59.14
10 Lacertæ	22	34	0.74	38	26	29.57
14 Andromedæ	23	25	32.	+38	35	38.

TABLE III.—*The Azimuth from Observations of α Lyræ.*

Date.	*a.*	Obs'r.	Date.	*a.*	Obs'r.
1882	s		1883	s	
Dec. 2	+0.36	B.	Oct. 10	+3.30	B.
19	0.84	I.	26	3.23	B.
1883			Nov. 12	2.39	T.
Jan. 11	1.07	I.	27	2.30	B.
21	0.73	I.	Dec. 11	2.39	B.
Feb. 1	1.53	I.	28	2.76	T.
26	1.39	I.	1884		
Mar. 7	1.07	I.	Jan. 16	2.59	B.
27	2.20	B.	31	2.20	T.
Apr. 3	1.56	B.	Feb. 15	2.27	T.
24	1.75	B.	28	2.17	B.
May 3	3.01	B.	Mar. 24	1.97	T.
17	3.00	B.	Apr. 6	2.11	B.
June 29	3.40	B.	20	2.26	B.
July 13	2.68	B.	June 18	2.69	B.
26	2.76	I.	July 18	2.65	B.
Sept. 9	3.23	B.	30	+2.67	B.
26	+3.65	B.			

TABLE IV.—*The Adopted Clock Corrections and Rates.*

Date.	Sidereal Hour.	Clock Correction.	Hourly Rate.	Date.	Sidereal Hour.	Clock Correction.	Hourly Rate.	Date.	Sidereal Hour.	Clock Correction.	Hourly Rate.
1882	h	s	s	1883	h	s	s	1883	h	s	s
Dec. 2	17.20	−2.00	+0.044	Jan. 11	19.20	+34.10	+0.058	Mar. 3	9.30	+43.76	+0.055
2	5.12	1.48	(*)	12	6.00	34.73	0.061	7	8.90	49.02	0.055
6	18.10	1.18	0.013	14	19.25	38.49	0.059	7	18.20	49.53	0.055
8	18.30	−0.55	0.028	21	19.20	48.45	0.050	8	8.73	50.33	0.060
9	19.62	+0.17	0.026	22	19.25	49.66	0.056	13	9.30	57.61	0.060
11	18.30	1.38	0.032	24	6.83	51.65	0.056	14	8.50	59.01	0.055
12	18.40	2.15	0.035	29	4.67	58.20	0.055	20	22.70	67.68	0.033
13	21.00	3.07	0.033	Feb. 1	6.00	62.25	0.059	21	10.10	68.05	0.043
13	7.37	+3.41	(†)	1	19.17	63.03	0.051	22	10.55	69.11	0.048
15	2.90	−1.69	0.018	8	23.75	10.60	0.056	24	10.15	11.38	0.049
16	18.50	1.41	0.031	8	8.83	11.11	0.064	27	18.60	15.36	0.052
16	3.83	−1.12	0.042	9	7.33	12.56	0.055	Apr. 3	9.25	23.67	0.056
18	4.70	+0.92	0.049	12	6.10	16.46	0.057	4	9.97	25.05	0.059
19	19.17	1.63	0.055	19	8.10	26.07	0.065	7	10.50	29.33	0.059
26	20.92	10.89	0.051	21	2.75	28.83	0.056	10	10.70	33.58	0.053
28	18.63	13.23	0.058	21	9.35	29.20	0.063	11	10.97	34.87	0.049
29	19.30	14.67	0.055	23	9.60	32.26	0.055	13	10.20	37.15	(‡)
1883 Jan. 2	19.40	19.94	0.052	26	10.00	36.22	0.059	14	7.70	5.25	0.054
2	5.40	20.46	0.059	28	10.20	39.08	0.064	17	10.40	9.25	0.045
11	22.30	+32.76	+0.064	Mar. 1	9.25	40.56	0.068	18	10.25	10.32	0.051
				2	9.37	+42.19	+0.066	20	11.85	+12.87	+0.048

* Clock ran down. † Clock dismounted ‡ Stopped clock to adjust mercury cup.

TABLE IV.—*The Adopted Clock Corrections and Rates*—Continued.

Date.	Side-real Hour.	Clock Correc-tion.	Hourly Rate.	Date.	Side-real Hour.	Clock Correc-tion.	Hourly Rate.	Date.	Side-real Hour.	Clock Correc-tion.	Hourly Rate.
1883	h	s	s	1883	h	s	s	1883	h	s	s
Apr. 21	9.40	+13.91	+0.049	July 5	9.10	+35.62	+0.041	Sept. 27	9.95	+34.98	+0.033
24	11.30	17.56	0.055	7	6.90	37.48	0.035	28	7.28	35.68	0.041
25	10.20	18.81	0.052	10	10.30	40.13	0.029	Oct. 2	13.20	38.85	0.029
26	19.50	20.54	0.052	10	0.20	40.54	0.031	3	14.55	39.58	0.036
27	19.60	21.80	0.051	12	8.00	41.51	0.038	3	10.10	40.28	0.039
30	5.00	24.71	0.063	12	4.90	42.31	0.033	4	12.00	41.29	0.044
May 2	5.40	27.86	0.049	14	17.60	43.52	0.037	7	10.28	44.41	0.034
2	14.30	28.29	0.067	16	8.70	44.98	0.039	8	10.35	45.24	0.051
3	9.50	29.58	0.058	16	5.90	45.80	0.023	9	11.63	46.54	0.052
3	20.30	30.05	0.053	17	18.80	46.10	0.039	10	10.82	47.74	0.045
4	11.45	30.85	0.055	18	17.80	47.01	0.010	11	22.10	48.25	0.035
6	19.80	33.96	0.046	20	8.50	47.39	0.033	14	19.30	50.69	0.012
8	20.80	36.22	0.042	22	19.20	49.30	0.028	15	14.05	50.91	0.029
9	20.40	37.20	0.052	22	7.00	49.63	0.019	15	11.05	51.52	0.043
15	20.70	44.67	0.054	23	7.40	50.10	0.022	17	11.05	53.59	0.036
16	21.00	45.99	0.056	25	10.70	50.70	0.026	19	14.30	+54.58	0.038
17	13.30	46.90	0.053	26	7.00	51.87	0.031	24	16.10	− 0.77	0.033
18	21.70	48.61	0.048	31	13.60	55.04	0.038	24	23.68	0.52	0.022
19	13.10	+49.40	0.060	31	1.60	+55.49	0.029	25	14.40	− 0.19	0.043
22	7.45	− 6.62	0.055	Aug. 2	3.20	− 3.05	0.032	26	14.67	+ 0.86	0.039
24	13.20	3.65	0.058	6	3.20	+ 0.01	0.026	26	12.95	1.73	0.046
25	21.50	− 1.77	0.060	7	3.10	0.64	0.038	29	14.90	4.04	(*)
31	22.00	+ 6.95	0.067	12	3.20	5.18	0.031	29	17.20	19.99	0.034
June 1	22.50	8.58	0.061	21	18.60	11.59	0.017	30	12.27	21.45	0.041
4	12.60	12.36	0.055	22	18.80	12.01	0.030	Nov. 1	19.25	22.73	0.047
4	22.50	12.90	0.047	Sept. 1	20.90	19.28	0.033	1	13.10	23.56	0.049
5	22.00	14.00	0.042	3	4.05	21.07	0.027	2	13.00	24.74	0.051
6	14.95	14.71	0.034	5	16.05	22.03	0.018	4	14.30	27.27	0.051
8	7.17	16.06	0.037	6	11.30	22.33	0.026	6	21.00	28.83	0.051
8	14.40	16.33	0.025	6	9.00	22.90	0.035	7	21.25	30.08	0.045
9	8.50	16.79	0.032	7	9.10	23.75	0.022	9	18.87	32.15	0.035
11	7.90	18.32	0.025	9	16.70	24.43	0.015	9	12.50	32.76	0.037
14	7.70	20.10	0.024	9	7.25	24.65	(*)	11	13.25	+34.58	0.039
14	14.30	20.26	0.026	10	2.40	m 18 23.38	0.036	13	13.73	−23.53	0.043
15	9.80	20.77	0.033	13	14.30	18 25.56	0.027	15	18.37	22.30	0.042
15	4.20	21.38	0.042	14	11.48	18 26.13	0.023	15	14.52	21.46	0.040
19	7.70	24.54	0.032	14	10.85	18 26.67	0.010	16	1.23	21.03	0.044
20	8.20	25.36	0.028	16	9.75	27.12	0.021	17	17.87	20.30	0.044
21	7.85	26.03	0.028	18	9.70	28.14	0.026	18	13.00	18.39	0.052
21	23.70	26.48	0.031	20	12.70	28.83	0.018	19	13.40	17.12	0.040
22	4.30	27.36	0.025	21	12.85	29.27	0.032	24	18.62	13.05	0.045
28	7.00	30.37	0.028	23	19.40	31.04	0.026	27	19.25	9.81	0.041
29	10.60	31.14	0.026	24	9.53	32.04	0.029	27	14.22	9.04	0.046
29	5.63	31.63	0.028	25	11.50	+32.78	+0.047	28	2.15	8.49	0.049
July 2	5.75	+33.65	+0.038					28	10.77	− 8.07	+0.043

* Clock ran down.

TABLE IV.—*The Adopted Clock Corrections and Rates*—Continued.

Date.		Sidereal Hour.	Clock Correction.	Hourly Rate.
		h	s	s
1883 Nov.	30	18.35	- 6.70	+ 0.056
	30	14.25	5.59	0.049
Dec.	2	14.40	3.25	0.044
	4	14.51	− 1.15	0.050
	6	3.87	+ 0.71	0.048
	10	2.50	5.24	0.054
	10	14.80	5.90	0.057
	12	19.87	7.55	0.058
	13	19.20	8.91	0.055
	14	4.20	10.73	0.042
	16	0.37	12.59	0.049
	17	2.05	13.85	0.050
	21	18.33	18.23	0.056
	21	3.10	18.72	0.062
	21	15.55	19.49	0.044
	24	4.10	22.13	0.033
	25	16.62	23.34	0.031
	27	15.83	24.81	0.032
	28	16.25	25.58	0.032
	29	2.62	25.91	0.027
	30	18.67	26.34	0.017*
1884 Jan.	2	16.10	29.93	0.017
	4	3.90	30.55	0.016
	5	5.67	30.96	0.016
	6	0.93	31.27	(†)
	8	20.91	23.92	0.040
	9	2.55	25.12	0.020
	9	16.50	25.40	0.021
	13	18.10	27.48	0.018
	15	16.95	28.30	0.027
	16	18.32	28.98	0.012
	17	5.60	29.12	0.008
	17	18.75	29.23	0.013
	20	15.10	30.12	(‡)
	20	18.70	8.01	0.012
	21	6.45	8.15	0.017
	21	19.20	8.37	0.021
	22	18.30	8.86	0.020
	23	5.35	9.08	0.012
	25	3.50	9.62	0.021
	26	4.50	10.14	0.019
	27	6.95	+10.63	+0.021
1884 Jan.	29	6.83	+11.65	+ 0.010
	31	18.42	12.27	0.018
Feb.	1	6.05	12.48	0.002
	1	18.30	12.50	0.018
	2	7.30	12.73	0.025
	3	2.28	13.20	(‡)
	3	18.75	1.02	0.016
	10	22.30	3.33	0.001
	14	21.05	3.39	0.010
	15	6.45	3.48	0.007
	15	18.80	3.56	0.014
	18	7.50	4.43	0.008
	20	19.90	4.93	0.025
	21	7.20	5.21	0.020
	24	20.65	6.89	0.021
	26	2.35	7.51	0.023
	26	19.30	7.90	0.015
	28	6.87	8.42	0.012
	29	8.25	8.72	0.018
Mar.	2	2.25	9.48	0.015
	2	21.50	9.77	0.023
	4	6.80	10.52	0.026
	6	6.80	11.76	0.044
	9	22.60	15.65	0.030
	10	7.40	15.91	0.026
	15	3.40	18.90	0.017
	16	23.30	19.65	0.027
	20	22.20	22.19	0.024
	21	22.05	22.75	0.041
	22	7.00	23.12	0.027
	24	8.95	24.49	0.022
	26	21.97	25.85	0.014
	27	19.70	26.19	0.021
	29	6.30	26.91	0.023
	30	23.15	27.86	0.024
	31	9.30	28.10	0.011
Apr.	1	5.60	28.33	0.019
	3	5.70	29.25	0.018
	4	22.20	29.98	0.027
	5	9.42	30.28	0.014
	6	21.90	30.80	0.012
	7	11.12	30.96	0.027
	10	3.65	+32.71	+0.008
1884 Apr.	10	23.67	+32.87	+ 0.025
	11	20.03	33.37	0.027
	16	5.30	36.19	0.031
	16	19.00	36.61	0.032
	17	11.82	37.14	0.032
	18	23.20	38.00	0.024
	20	23.03	39.76	0.038
	26	2.50	43.14	0.027
	27	0.53	44.25	0.024
	28	23.67	44.88	0.027
	29	20.80	45.60	0.034
May	5	5.00	+49.77	0.033
	9	1.60	− 6.64	0.031
	12	3.55	− 4.79	0.037
	18	1.50	+ 0.80	0.034
	26	7.52	8.25	0.043
June	2	8.80	14.05	0.034
	9	8.60	20.38	0.038
	15	3.40	25.23	0.047
	17	3.00	26.76	0.032
	18	5.10	27.77	0.039
	20	3.30	29.22	0.031
	23	9.70	31.23	0.037
	30	4.20	5.96	(‡)
July	3	18.45	7.90	0.031
	6	5.95	9.95	0.025
	7	4.40	10.44	0.022
	10	18.65	12.39	0.031
	11	19.23	12.89	0.020
	12	19.15	14.11	0.051
	13	4.70	15.05	0.028
	14	18.30	15.54	0.036
	18	18.55	19.32	0.039
	20	18.80	21.48	0.045
	20	5.90	21.77	0.026
	21	18.30	22.61	0.068
	22	17.65	23.46	0.036
	23	18.30	24.35	0.036
	27	6.03	28.56	0.039
	30	17.30	30.69	0.036
Aug.	3	6.40	+34.47	+0.035

* Maintaining power not acting; clock lost 2 seconds while winding. † Clock dismounted. ‡ Clock ran down.

PRIME VERTICAL TRANSIT INSTRUMENT.

OBSERVATIONS AND REDUCTIONS.

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1882			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Dec. 2	E.	S.	17 56 29.8	57 25.7	58 24.2	59 26.4	0 28.7	0 59.3	1 35.4	2 4.7	2 39.7	2 54.0	3 11.8	3 28.9	3 44.9
		N.	18 16 18.0	14 23.2	12 38.6	10 58.8	9 28.0	8 47.1	8 5.2	7 23.0	6 43.8	6 27.9	6 8.4	5 49.3	5 30.6
	W.	N.	18 49 41.4	51 36.7	53 21.7	54 59.1	56 29.9	57 10.1	57 55.5	58 35.9	59 15.2	59 31.7	59 50.1	0 8.8	0 25.6
		S.	19 9 28.7	8 32.3	7 31.9	6 31.1	5 27.8	4 57.9	4 23.8	3 51.9	3 19.0	3 0.8	2 44.7	2 27.9	2 9.8
7	E.	S.	23 44 34.1	45 5.1	45 37.2	46 10.1	46 40.3	46 58.0	47 14.0	47 30.0	......	......	......	......	......
		N.	23 52 45.9	52 10.8	51 35.2	50 57.6	50 24.2	50 6.6	49 49.4	49 36.3	......	......	......	......	......
	W.	N.	1 47 53.5	48 28.6	49 1.9	49 36.4	50 12.2	50 30.8	50 46.8	51 3.3	......	......	......	......	......
		S.	1 56 2.7	55 30.0	54 58.4	54 25.5	53 54.7	53 38.4	53 21.8	53 6.4	......	......	......	......	......
8	E.	S.	17 56 44.9	57 40.5	58 41.3	59 43.1	0 48.3	1 17.1	1 51.0	2 25.5	2 58.8	3 14.1	3 29.9	......	......
		N.	18 15 32.0	13 42.6	11 59.0	10 25.4	8 56.0	8 16.0	7 32.9	6 53.1	6 14.8	5 56.2	5 38.9	......	......
	W.	N.	18 50 15.0	52 7.5	53 53.5	55 29.5	56 57.0	57 38.0	58 18.5	58 59.5	59 37.5	59 55.0	0 13.0	......	......
		S.	19 9 7.5	8 11.0	7 11.5	6 8.0	5 7.0	4 36.5	4 2.0	3 28.0	2 55.0	2 41.0	2 23.5	......	......
11	E.	N.	23 44 9.9	44 39.0	45 10.0	45 43.0	46 14.0	......	46 46.2	47 1.0	47 17.4	......	......	......	......
		S.	23 53 9.0	52 34.0	51 59.4	51 23.6	50 49.6	......	50 16.5	50 0.3	49 42.8	......	......	......	......
	W.	S.	1 47 21.8	47 57.0	48 32.0	49 6.6	49 41.7	......	50 14.3	50 32.2	50 48.7	......	......	......	......
		N.	1 56 21.8	55 51.4	55 20.2	54 48.0	54 16.6	......	53 45.4	53 29.5	53 12.7	......	......	......	......
11	E.	N.	2 8 13.2	8 54.5	......	10 20.0	11 4.0	11 24.9	11 47.2	12 7.9	12 33.8	......	......	......	......
		S.	2 21 6.2	20 12.2	......	18 23.3	17 35.0	17 10.2	16 46.7	16 20.9	15 53.9	......	......	......	......
	W.	S.	3 34 10.4	35 7.3	......	36 54.1	37 45.4	38 12.3	38 35.0	38 59.9	39 26.5	......	......	......	......
		N.	3 47 9.4	46 27.0	......	45 1.7	44 19.0	43 55.7	43 36.3	43 14.4	42 51.7	......	......	......	......
12	E.	S.	17	57 44.5	58 46.9	59 47.0	......	1 21.1	1 53.0	2 29.0	3 2.2	3 17.8	3 35.9	......	......
		N.	18	13 34.0	11 48.1	10 14.8	......	8 5.3	7 25.0	6 41.8	6 7.0	5 46.3	5 28.5	......	......
	W.	N.	18	52 15.8	53 58.0	55 31.4	......	57 43.1	58 24.9	59 8.0	59 43.2	0 3.0	0 19.8	......	......
		S.	19	8 5.7	7 4.8	6 2.7	......	4 29.7	3 54.4	3 19.2	2 47.0	2 30.5	2 13.0	......	......
13	E.	N.	2 8 27.4	9 9.6	9 53.3	10 36.0	11 19.5	......	12 2.0	12 24.0	12 47.2	......	......	......	......
		S.	2 20 43.9	19 48.0	18 55.7	18 3.0	17 12.3	......	16 24.2	16 0.5	15 35.0	......	......	......	......
	W.	S.	3 34 33.7	35 28.6	36 21.2	37 14.5	38 4.4	......	38 53.0	39 17.9	39 43.8	......	......	......	......
		N.	3 46 51.2	46 10.0	45 24.9	44 42.0	43 59.0	......	43 15.5	42 54.0	42 31.0	......	......	......	......
13	E.	N.	4 14 34.4	15 14.0	15 55.0	16 37.8	17 17.8	17 39.0	17 59.9	18 21.8	18 43.7	......	......	......	......
		S.	4 26 15.6	25 25.0	24 36.0	23 46.3	22 57.6	22 34.0	22 11.0	21 48.3	21 25.4	......	......	......	......
	W.	S.	5 44 28.5	45 22.5	46 12.2	47 2.5	47 50.0	48 13.3	48 36.8	48 59.7	49 23.2	......	......	......	......
		N.	5 56 13.2	55 34.7	54 52.8	54 10.0	53 30.0	53 8.5	52 48.4	52 25.0	52 1.4	......	......	......	......
13	E.	S.	4 29 19.0	29 43.9	......	30 34.0	30 58.7	31 11.3	31 25.0	31 37.1	......	......	......	......	......
		N.	4 35 57.2	35 30.0	......	34 36.0	34 9.4	33 57.0	33 43.5	33 30.2	......	......	......	......	......
	W.	N.	7 7 30.1	7 56.9	......	8 51.0	9 17.7	9 30.0	9 43.9	9 57.6	......	......	......	......	......
		S.	7 14 8.6	13 43.9	......	12 53.3	12 27.9	12 15.9	12 2.7	11 49.1	......	......	......	......	......
14	E.	N.	23 44 13.8	44 46.9	45 17.2	45 48.9	46 20.0	46 36.4	46 53.4	47 7.0	47 24.0	......	......	......	......
		S.	23 52 50.3	52 15.2	51 37.6	51 1.6	50 29.8	50 12.3	49 56.3	49 39.3	49 21.9	......	......	......	......
	W.	S.	1 47 29.7	48 5.6	48 40.8	49 15.9	49 49.4	50 7.0	50 22.0	50 40.4	50 55.8	......	......	......	......
		N.	1 56 4.7	55 33.5	55 1.4	54 29.0	53 58.3	53 43.0	53 27.5	53 10.3	52 54.7	......	......	......	......
15	E.	S.	2	9 16.5	9 59.6	10 44.4	11 27.0	11 49.4	12 16.1	12 35.8	12 58.0	......	......	......	......
		N.	2	19 53.0	18 58.3	18 4.5	17 14.8	16 51.1	16 24.5	16 0.0	15 37.0	......	......	......	......
	W.	N.	3	35 34.0	36 26.2	37 23.0	38 13.2	38 37.2	39 4.7	39 27.8	39 53.5	......	......	......	......
		S.	3	46 12.7	45 30.0	44 46.3	43 59.0	43 38.0	43 16.0	42 53.2	42 29.2	......	......	......	......
16	E.	S.	17 56 29.0	57 24.5	58 22.5	59 25.0	0 28.4	0 57.7	1 32.0	2 3.2	2 36.0	2 51.7	3 8.7	3 25.4	3 42.6
		N.	18 16 6.6	14 14.7	12 29.8	10 51.4	9 20.3	8 39.4	7 57.7	7 16.3	6 37.4	6 18.9	6 0.5	5 41.4	5 23.6
	W.	N.	18 49 47.8	51 38.7	53 28.2	55 4.8	56 35.0	57 15.6	58 0.3	58 39.6	59 20.0	59 38.0	59 56.6	0 14.6	0 33.0
		S.	19 9 28.4	8 31.0	7 32.4	6 30.5	5 28.2	4 57.2	4 23.9	3 50.1	3 18.0	3 0.9	2 46.2	2 28.7	2 9.8
16	E.	S.	23 44 25.0	44 56.8	45 27.6	45 59.3	46 32.3	46 47.6	47 4.9	47 21.5	47 36.5	......	......	......	......
		N.	23 52 57.1	52 22.1	51 46.0	51 12.0	50 36.4	50 19.9	50 0.9	49 44.7	49 28.4	......	......	......	......
	W.	N.	1 47 40.4	48 15.3	48 50.0	49 26.2	50 1.5	50 16.8	50 35.3	50 52.0	51 8.8	......	......	......	......
		S.	1 56 10.4	55 40.3	55 7.6	54 35.7	54 3.7	53 48.3	53 31.0	53 14.4	52 59.0	......	......	......	......
16	E.	S.	1 18 42.6	19 27.0	20 15.3	21 2.5	21 51.5	22 13.8	22 40.3	23 6.0	23 31.0	......	......	......	......
		N.	1 32 28.4	31 24.3	30 20.7	29 18.0	28 18.7	27 52.0	27 21.8	26 54.4	26 27.0	......	......	......	......
	W.	N.	2 35 13.9	36 17.7	37 17.9	38 21.0	39 20.8	39 47.8	40 16.5	40 44.0	41 12.0	......	......	......	......
		S.	2 48 56.4	48 11.0	47 25.0	46 37.5	45 47.2	45 23.7	44 57.4	44 34.5	44 7.0	......	......	......	......
16	E.	S.	2 8 35.9	9 16.4	9 58.0	10 43.0	11 28.0	11 49.4	12 11.8	12 34.4	12 57.7	......	......	......	......
		N.	2 20 47.2	19 53.8	18 59.3	18 6.5	17 15.4	16 49.5	16 24.8	16 1.0	15 36.6	......	......	......	......
	W.	N.	3 34 38.6	35 31.6	36 28.5	37 20.9	38 12.2	38 37.2	39 2.6	39 27.4	39 51.7	......	......	......	......
		S.	3 46 51.6	46 10.4	45 29.3	44 43.2	43 57.9	43 37.9	43 14.7	42 50.6	42 28.7	......	......	......	......
18	E.	N.	1	......	20 8.2	20 55.9	......	22 6.9	22 32.3	22 56.0	23 20.8	......	......	......	......
		S.	1	......	30 18.9	29 19.5	......	27 55.4	27 29.9	26 59.5	26 29.3	......	......	......	......
	W.	S.	2	......	37 13.0	38 14.8	......	39 41.7	40 8.8	40 35.6	41 2.2	......	......	......	......
		N.	2	......	47 26.0	46 37.4	......	45 26.9	45 4.8	44 38.1	44 11.8	......	......	......	......

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
α Lyræ........	128.9	139.8	+0.225	+0.314	+38 40 45.63	−14.48	+38 40 31.15	B.	
	135.2	127.9							
	131.8	125.2	+0.388						
	119.4	132.2							
μ Andromedæ .	169.7	160.4	−0.469	−0.408	37 52 5.61	−14.95	37 51 50.66	I.	
	171.4	173.2							
	199.1	204.8	−0.356						
	203.2	191.8							
α Lyræ........	178.3	180.9	−0.156	−0.274	38 40 43.84	−12.95	38 40 30.89	B.	
	183.6	178.5							
	187.4	180.5	−0.394						"Eye and Ear." Seeing not good, image diffuse; rather unsteady.
	188.0	188.6							
μ Andromedæ .	163.4	155.4	−0.363	−0.453	37 52 7.02	−15.20	37 51 51.82	I.	
	157.8	160.0							
	167.4	167.7	−0.544						
	174.3	165.3							
ρ Persei	174.3	165.3	−0.506	−0.325	38 23 16.29	− 6.84	38 23 9.45	I.	
	172.1	173.0							
	174.3	180.0	−0.144						
	183.2	175.2							
α Lyræ........	156.9	163.5	−0.200	−0.073	38 40 43.75	−11.87	38 40 31.88	B.	Clouds.
	162.0	152.2							
	160.9	149.8	+0.056						Clouds.
	148.2	160.2							
ρ Persei	168.1	155.1	−0.181	−0.414	38 23 16.12	− 7.11	38 23 9.01	B.	
	158.4	168.5							
	166.3	174.8	−0.646						
	180.1	161.3							
μ Aurigæ......	177.1	164.9	−0.100	−0.281	38 20 36.03	+ 3.13	38 20 39.16	B.	
	165.7	176.3							
	167.5	176.7	−0.463						
	181.2	164.6							
θ Aurigæ......	125.7	131.5	−0.414	−0.467	37 12 3.35	+ 6.66	37 12 10.01	B.	
	175.9	164.3							
	180.8	166.5	−0.531						
	171.7	176.5							
μ Andromedæ .	145.8	167.9	−0.056	−0.279	37 52 6.33	−15.37	37 51 50.96	I.	East Transit clock used.
	170.4	147.4							
	190.0	159.5	−0.506						East Transit clock used.
	165.3	187.7							
ρ Persei	170.0	144.4	−0.431	−0.412	38 23 17.08	− 7.34	38 23 9.74	B.	Diffuse; unsteady.
	159.0	177.7							
	170.9	191.5	−0.394						
	200.2	173.3							
α Lyræ........	135.5	130.0	−0.150	−0.272	38 40 42.01	−10.57	38 40 31.44	I.	
	134.8	137.9							
	134.9	126.6	−0.381						
	127.4	128.6							
μ Andromedæ .	130.7	131.4	−0.681	−0.493	37 52 7.22	−15.38	37 51 51.84	I.	
	143.8	132.2							
	150.9	147.5	−0.294						
	155.1	153.8							
59 Andromedæ .	148.0	145.8	−0.250	−0.536	38 29 23.54	−11.29	38 29 12.25	I.	
	152.0	150.2							
	162.3	156.6	−0.813						
	162.8	155.5							
ρ Persei	159.7	152.0	−0.944	−1.042	38 23 17.15	− 7.42	38 23 9.73	I.	
	163.0	155.6							
	161.9	154.1	−1.125						
	162.2	152.0							
59 Andromedæ .	144.1	132.5	−0.694	−0.664	+38 29 22.43	−11.36	+38 29 11.07	B.	
	142.0	142.5							
	149.0	149.1	−0.613						
	155.6	145.7							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1882 Dec. 18	E.	N.	1	....	20 20.0	21 8.1	21 57.7	22 20.4	22 42.8	23 7.7	23 33.8	....	....	....	....
		S.	1	....	30 35.3	29 33.7	28 35.8	28 7.8	27 41.0	27 11.0	26 44.2	....	....	....	....
	W.	S.	2	....	37 0.0	38 2.7	39 1.0	39 30.8	39 57.2	40 24.7	40 53.0	....	....	....	....
		N.	2	....	47 19.0	46 29.8	45 43.9	45 16.5	44 54.2	44 28.0	44 5.0	....	....	....	....
18	E.	N.	2 8 31.0	9 12.0	9 55.2	10 38.5	11 22.8	11 45.0	12 5.0	12 28.8	12 51.8	....	....	....	....
		S.	2 20 49.9	19 54.0	18 59.9	18 6.0	17 17.7	16 52.3	16 28.3	16 3.7	15 40.0	....	....	....	....
	W.	S.	3 34 33.3	35 29.8	36 21.7	37 16.3	38 6.9	38 31.8	38 55.5	39 20.0	39 44.0	....	....	....	....
		N.	3 46 52.0	46 11.3	45 27.9	44 44.8	44 1.0	43 39.3	43 16.9	42 55.4	42 32.3	....	....	....	....
19	E.	S.	17 56 24.5	57 22.4	58 20.4	59 19.5	0 24.7	0 55.5	1 27.7	2 1.4	2 34.0	2 50.5	3 7.3	3 24.9	3 41.6
		N.	18 16 2.0	14 8.8	12 23.2	10 45.3	9 15.8	8 34.2	7 48.6	7 10.9	6 30.6	6 14.7	5 56.2	5 36.2	5 20.4
	W.	N.	18 49 49.0	51 47.8	53 24.6	54 58.4	56 29.4	57 14.6	57 56.4	58 39.9	59 17.2	59 36.6	59 52.7	0 12.2	0 31.7
		S.	19 9 25.4	8 28.6	7 28.2	6 30.0	5 23.9	4 54.6	4 23.2	3 48.0	3 15.6	2 57.4	2 43.8	2 23.3	2 9.5
19	E.	N.	1 18 36.5	....	20 7.0	20 56.8	21 43.6	22 8.5	22 32.1	22 57.8	23 22.8	....	....	....	....
		S.	1 32 22.9	....	30 17.3	29 16.4	28 19.6	27 52.6	27 24.4	26 57.0	26 29.0	....	....	....	....
	W.	S.	2 35 8.0	....	37 13.2	38 15.9	39 13.1	39 40.9	40 8.5	40 34.9	41 5.0	....	....	....	....
		N.	2 48 56.1	....	47 24.0	46 37.0	45 49.9	45 25.0	45 1.8	44 36.0	44 9.5	....	....	....	....
19	E.	N.	1 18 46.8	19 34.3	20 19.5	21 6.2	21 55.7	22 20.2	22 42.4	23 8.0	23 34.7	....	....	....	....
		S.	1 32 37.5	31 32.8	30 30.1	29 29.9	28 35.4	28 4.4	27 37.5	27 9.8	26 41.4	....	....	....	....
	W.	S.	2 34 55.4	35 59.4	37 2.5	38 4.8	39 2.6	39 30.6	39 58.7	40 23.9	40 53.7	....	....	....	....
		N.	2 48 47.0	48 0.8	47 14.8	46 27.6	45 38.9	45 14.8	44 52.8	44 27.0	43 59.9	....	....	....	....
19	E.	N.	2 8 29.9	9 11.8	9 53.2	10 38.7	11 20.5	11 43.5	12 4.4	12 26.8	12 50.0	....	....	....	....
		S.	2 20 44.5	19 48.8	18 56.9	18 4.3	17 13.0	16 48.6	16 25.4	15 59.8	15 36.6	....	....	....	....
	W.	S.	3 34 33.4	35 27.0	36 22.4	37 15.6	38 4.7	38 31.4	38 55.2	39 20.3	39 44.5	....	....	....	....
		N.	3 46 51.0	46 8.3	45 27.5	44 44.0	44 0.0	43 37.0	43 17.7	42 53.6	42 31.0	....	....	....	....
26	E.	S.	1 18 30.0	19 13.9	20 1.5	20 50.4	21 39.3	22 0.9	22 27.8	22 52.6	23 18.0	....	....	....	....
		N.	1 32 17.7	31 10.9	30 10.3	29 7.8	28 8.4	27 39.2	27 11.4	26 43.3	26 18.0	....	....	....	....
	W.	N.	2 34 59.0	36 1.4	37 5.3	38 6.0	39 5.7	39 32.9	40 2.2	40 30.0	40 58.5	....	....	....	....
		S.	2 48 46.0	48 0.8	47 13.2	46 25.0	45 35.4	45 12.4	44 45.7	44 20.0	43 56.1	....	....	....	....
26	E.	S.	1	19 24.0	20 12.1	21 0.9	21 50.2	22 12.6	22 38.0	23 4.8	23. 28.5	....	....	....	....
		N.	1	31 22.7	30 23.5	29 21.0	28 21.1	27 52.9	27 22.9	26 56.0	26 31.5	....	....	....	....
	W.	N.	2	35 49.0	36 52.2	37 52.6	38 54.3	39 23.0	39 52.1	40 20.0	40 47.5	....	....	....	....
		S.	2	47 49.7	47 2.6	46 15.1	45 27.2	45 2.1	44 35.7	44 10.4	43 45.2	....	....	....	....
26	E.	N.	2 8 20.2	9 3.3	9 45.4	10 30.2	11 10.7	11 34.7	11 55.8	12 19.1	12 43.3	....	....	....	....
		S.	2 20 37.0	19 41.7	18 48.5	17 53.0	17 6.4	16 41.0	16 16.9	15 53.2	15 28.5	....	....	....	....
	W.	S.	3 34 23.4	35 17.1	36 11.3	37 3.0	37 56.0	38 17.3	38 42.4	39 7.2	39 32.9	....	....	....	....
		N.	3 46 41.0	45 58.5	45 14.9	44 33.5	43 49.5	43 28.0	43 8.1	42 45.1	42 21.1	....	....	....	....
26	E.	S.	2	51 35.0	52 4.0	52 35.4	53 5.7	53 19.6	53 36.4	53 52.0	....	....	....	....	....
		N.	2	58 34.1	58 0.8	57 27.4	56 55.8	56 40.0	56 23.3	56 7.3	....	....	....	....	....
	W.	N.	5	2 45.4	3 18.4	3 51.2	4 24.5	4 39.3	4 55.9	5 12.5	....	....	....	....	....
		S.	5	9 44.7	9 13.7	8 43.7	8 13.7	7 58.7	7 43.3	7 27.7	....	....	....	....	....
26	E.	N.	4 14 27.8	15 9.2	15 50.2	16 30.9	17 13.0	17 35.1	....	18 16.7	18 39.7	....	....	....	....
		S.	4 26 10.4	25 19.9	24 29.3	23 38.4	22 52.0	22 27.9	....	21 43.0	21 18.4	....	....	....	....
	W.	S.	5 44 18.8	45 9.7	46 1.0	46 50.5	47 38.3	48 3.3	....	48 48.8	49 11.9	....	....	....	....
		N.	5 56 4.2	55 24.0	54 43.0	54 0.8	53 19.3	52 58.8	....	52 18.3	51 54.7	....	....	....	....
28	E.	N.	17	57 2.1	58 0.6	59 0.7	0 2.3	....	1 2.3	1 34.6	2 11.3	2 25.8	2 42.7	2 59.5	3 17.1
		S.	18	13 59.0	12 17.9	10 40.0	9 14.0	....	7 51.1	7 9.9	6 31.0	6 10.8	5 54.4	5 33.6	5 14.3
	W.	S.	18	51 22.2	53 5.0	54 44.0	56 13.2	....	57 35.7	58 14.2	58 58.0	59 13.4	59 30.8	59 51.9	0 10.0
		N.	19	8 24.0	7 24.5	6 24.0	5 23.3	....	4 22.0	3 49.5	3 16.7	3 0.0	2 43.8	2 24.7	2 7.4
28	E.	S.	23	....	45 11.9	45 43.4	46 17.5	46 32.4	46 49.2	47 5.6	47 21.1	....	....	....	....
		N.	23	....	51 30.8	50 55.6	50 20.8	50 5.6	49 47.2	49 30.2	49 13.7	....	....	....	....
	W.	N.	1	....	48 34.6	49 10.0	49 44.0	50 0.6	50 18.9	50 34.9	50 52.1	....	....	....	....
		S.	1	....	54 53.7	54 21.2	53 49.0	53 32.8	53 16.7	53 0.5	52 44.0	....	....	....	....
28	E.	N.	1	19 10.9	19 56.1	20 43.4	....	21 56.1	22 20.3	22 44.3	23 9.4	....	....	....	....
		S.	1	31 8.3	30 6.8	29 6.5	....	27 40.0	27 14.4	26 46.2	26 19.0	....	....	....	....
	W.	S.	2	35 57.4	37 0.5	38 2.0	....	39 29.9	39 55.9	40 24.0	40 50.2	....	....	....	....
		N.	2	47 58.9	47 13.0	46 24.4	....	45 11.9	44 48.7	44 25.8	43 58.0	....	....	....	....
28	E.	N.	1	19 22.7	20 7.2	20 56.5	....	22 8.7	22 30.5	22 56.2	23 22.3	23 35.4	....	....	....
		S.	1	31 24.0	30 20.7	29 19.0	....	27 53.0	27 26.8	26 58.4	26 30.1	26 18.5	....	....	....
	W.	S.	2	35 45.6	36 48.0	37 50.5	....	39 17.0	39 45.7	40 13.3	40 40.0	40 54.3	....	....	....
		N.	2	47 47.6	47 2.3	46 13.9	....	45 1.2	44 38.1	44 13.5	43 47.4	43 34.7	....	....	....
28	E.	S.	2	9 1.4	9 44.3	10 28.0	11 13.2	11 34.9	11 57.5	....	12 43.9	....	....	....	....
		N.	2	19 38.0	18 45.0	17 51.6	17 0.2	16 36.5	16 10.3	....	15 21.0	....	....	....	....
	W.	N.	3	35 17.4	36 12.3	37 4.6	37 55.9	38 21.1	38 47.5	....	39 34.9	....	....	....	....
		S.	3	45 55.1	45 11.4	44 27.9	43 43.3	43 21.7	42 59.0	....	42 14.8	....	....	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ′ "	"	° ′ "		
B. A. C. 662..	144.1	132.5	−0.694	−0.664	+38 29 36.50	−11.35	+38 29 25.15	B.	
	142.0	142.5							
	149.0	149.1	−0.613						
	155.6	145.7							
ρ Persei.......	151.2	138.5	−0.806	−0.487	38 23 17.65	− 7.55	38 23 10.10	B.	
	148.1	147.9							
	148.4	159.6	−0.156						
	162.6	148.9							
α Lyræ........	122.5	120.9	−0.900	−0.759	38 40 40.84	− 9.69	38 40 31.15	I.	
	128.4	115.6							
	128.9	118.1	−0.575						
	123.0	124.6							
59 Andromedæ .	148.0	139.6	−0.856	−0.789	38 29 22.27	−11.38	38 29 10.89	I.	
	147.7	142.4							
	149.7	144.7	−0.700						
	152.0	145.8							
B. A. C. 662..	148.0	139.6	−0.856	−0.789	38 29 36.17	−11.37	38 29 24.80	I.	
	147.7	142.4							
	149.7	144.7	−0.700						
	152.0	145.8							
ρ Persei.......	149.4	142.6	−0.825	−0.787	38 23 16.29	− 7.60	38 23 8.69	I.	
	150.2	143.8							
	155.1	148.9	−0.731						
	156.0	150.5							
59 Andromedæ .	112.8	115.8	−0.950	−1.067	38 29 23.60	−11.77	38 29 11.83	I.	Clear; steady.
	128.3	110.1							
	132.2	115.4	−1.125						Clear; steady.
	124.9	123.7							
B. A. C. 662..	112.8	115.8	−0.950	−1.067	38 29 37.41	−11.76	38 29 25.65	I.	Clear; steady.
	128.3	110.1							
	132.2	115.4	−1.125						Clear; steady.
	124.9	123.7							
ρ Persei.......	129.0	111.6	−1.125	−1.250	38 23 17.60	− 8.14	38 23 9.46	I.	Clear; steady.
	123.9	123.3							
	126.5	122.4	−1.312						Clear; steady.
	136.0	119.1							
50 Persei.......	125.6	122.5	−1.206	−1.398	37 43 59.28	− 3.23	37 43 56.05	I.	Clear; steady.
	132.1	115.9							
	136.6	120.4	−1.538						Clear; steady.
	131.8	123.4							
μ Aurigæ......	132.3	119.3	−1.131	−1.213	38 20 38.46	+ 1.88	38 20 40.34	I.	Clear; steady.
	131.2	126.1							
	129.6	123.6	−1.238						Clear; steady.
	132.3	118.5							
α Lyræ........	112.0	95.6	−0.644	−0.727	38 40 38.88	− 7.01	38 40 31.87	B.	Light clouds passing.
	103.6	108.7							
	104.0	109.5	−0.756						
	115.6	98.0							
μ Andromedæ .	118.8	118.3	−1.038	−1.163	37 52 6.71	−15.35	37 51 51.36	B.	
	130.3	114.2							
	141.8	125.7	−1.244						
	136.4	132.6							
59 Andromedæ .	139.0	123.4	−1.313	-1.407	38 29 22.20	−11.87	38 29 10.33	B.	
	135.8	130.4							
	138.8	134.1	−1.444						
	148.1	129.7							
B. A. C. 662..	139.0	123.4	−1.313	−1.407	38 29 36.86	−11.87	38 29 24.99	B.	
	135.8	130.4							
	138.8	134.1	−1.444						
	148.1	129.7							
ρ Persei.......	138.0	132.2	−1.394	−1.431	+38 23 17.35	− 8.32	+38 23 9.03	B.	
	144.5	128.0							
	150.2	132.9	−1.419						
	145.0	139.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1882 Dec. 28	E.	S.	4	....	15 47.0	16 28.5	17 10.9	17 34.3	17 53.7	18 18.4	18 40.1	18 50.0	18 58.2	....	....
		N.	4	....	24 24.9	23 34.2	22 44.9	22 23.9	21 57.4	21 33.6	21 11.1	21 1.2	20 49.8	....	....
	W.	N.	5	....	46 0.0	46 50.6	47 41.6	48 3.0	48 28.9	48 52.6	49 14.6	49 26.8	49 37.0	....	....
		S.	5	....	54 39.3	53 56.1	53 13.0	52 52.4	52 30.5	52 7.5	51 46.8	51 37.3	51 27.0	....	....
28	E.	N.	4 29 7.8	29 32.5	....	30 22.6	30 48.3	31 0.0	31 11.8	31 23.8	31 37.1	....	....	....	....
		S.	4 35 48.1	35 20.0	....	34 27.8	34 2.0	33 48.9	33 36.3	33 23.3	33 10.9	....	....	....	....
	W.	S.	7 7 17.4	7 45.1	....	8 39.0	9 4.0	9 16.7	9 29.6	9 42.7	9 56.2	....	....	....	....
		N.	7 13 57.9	13 32.5	....	12 43.5	12 18.6	12 5.7	11 53.0	11 40.5	11 27.4	....	....	....	....
28	E.	S.	5 13 12.0	13 57.0	14 45.0	15 32.2	16 20.4	16 44.6	17 10.0	17 35.1	17 59.0	....	....	....	....
		N.	5 26 54.8	25 52.9	24 49.9	23 48.7	22 50.0	22 22.2	21 52.8	21 25.6	20 57.7	....	....	....	....
	W.	N.	6 29 38.9	30 41.6	31 47.8	32 46.3	33 46.9	34 14.8	34 44.7	35 11.6	35 39.4	....	....	....	....
		S.	6 43 27.7	42 40.9	41 53.2	41 6.5	40 17.4	39 52.7	39 27.9	39 2.8	38 39.0	....	....	....	....
29	E.	N.	18	....	....	....	....	....	1 1.3	1 33.4	2 5.9	2 24.5	2 38.1	2 59.1	3 17.0
		S.	18	....	....	....	....	....	7 48.0	7 8.0	6 29.2	6 8.6	5 51.0	5 30.1	5 10.7
	W.	S.	18	....	....	....	....	....	57 30.5	58 12.7	58 55.0	59 14.0	59 29.9	59 52.7	0 12.0
		N.	19	....	....	....	....	....	4 22.6	3 51.4	3 16.9	3 1.7	2 46.6	2 27.2	2 8.0
1883 Jan. 1	E.	N.	17 55 57.0	56 55.7	57 52.1	58 52.4	59 53.8	0 24.3	0 54.8	1 27.3	2 2.5	2 17.6	2 32.9	2 50.4	3 9.3
		S.	18 15 48.8	13 53.8	12 10.7	10 35.3	9 4.9	8 21.6	7 42.4	7 2.7	6 21.0	6 2.0	5 45.3	5 24.1	5 4.6
	W.	S.	18 49 18.0	51 13.5	52 58.6	54 37.2	56 5.5	56 48.1	57 26.8	58 9.7	58 51.0	59 8.0	59 26.9	59 45.9	0 5.4
		N.	19 9 14.2	8 18.0	7 20.4	6 18.7	5 18.5	4 46.1	4 16.4	3 44.1	3 9.4	2 52.4	2 38.4	2 20.5	2 3.7
2	E.	S.	2	....	....	....	11 5.2	11 26.3	11 50.2	....	12 35.4	12 46.4	12 56.4	....	....
		N.	2	....	....	....	16 55.3	16 29.8	16 5.0	....	15 15.2	15 3.6	14 52.5	....	....
	W.	N.	3	....	....	....	37 49.2	38 13.5	38 37.9	....	39 26.7	39 40.0	39 50.6	....	....
		S.	3	....	....	....	43 35.6	43 15.1	42 52.6	....	42 5.8	41 56.2	41 44.2	....	....
2	E.	N.	2	....	....	52 25.0	52 54.0	53 9.5	53 24.1	53 40.4	53 56.0	....	....	....	....
		S.	2	....	....	57 21.0	56 49.1	56 33.6	56 18.7	56 2.7	55 45.3	....	....	....	....
	W.	S.	5	....	....	3 40.4	4 11.6	4 27.4	4 42.6	4 58.2	5 14.2	....	....	....	....
		N.	5	....	....	8 36.0	8 5.4	7 50.6	7 36.2	7 21.2	7 6.3	....	....	....	....
2	E.	S.	4	14 59.9	15 41.8	16 24.1	17 5.7	17 29.0	17 50.3	....	....	....	....	....	....
		N.	4	25 12.0	24 19.2	23 29.6	22 38.4	22 16.5	21 51.5	....	....	....	....	....	....
	W.	N.	5	45 2.9	45 53.2	46 43.6	47 33.7	47 55.8	48 20.7	....	....	....	....	....	....
		S.	5	55 14.4	54 32.8	53 49.0	53 8.0	52 45.8	52 24.0	....	....	....	....	....	....
11	E.	S.	17 55 43.6	56 40.3	57 38.4	58 37.5	59 43.3	0 12.7	0 46.7	1 18.6	1 52.7	2 8.9	2 23.7	2 40.3	2 57.0
		N.	18 15 17.1	13 26.1	11 41.8	10 4.7	8 34.6	7 51.6	7 10.2	6 31.3	5 51.8	5 34.0	5 16.6	4 58.3	4 39.3
	W.	N.	18 49 19.3	51 14.6	52 59.3	54 37.4	56 6.4	56 49.0	57 30.9	58 12.6	58 49.8	59 8.9	59 26.6	59 46.6	0 4.5
		S.	19 9 2.0	8 4.5	7 6.2	6 6.6	5 2.9	4 32.4	3 58.0	3 27.1	2 53.2	2 39.0	2 22.1	2 3.2	1 47.4
12	E.	N.	2 7 55.7	8 39.0	9 21.0	10 6.2	10 46.3	11 9.4	11 32.1	11 55.0	12 18.8	....	....	....	....
		S.	2 20 14.0	19 16.9	18 27.5	17 33.0	16 44.9	16 16.5	15 56.0	15 30.2	15 8.3	....	....	....	....
	W.	S.	3 33 59.0	34 54.3	35 48.4	36 41.1	37 33.9	37 57.2	38 21.0	38 46.0	39 10.5	....	....	....	....
		N.	3 46 18.0	45 36.4	44 51.9	44 9.0	43 28.0	43 5.0	42 41.2	42 20.4	41 58.2	....	....	....	....
12	E.	S.	2	....	51 39.3	52 8.5	52 42.0	52 56.1	53 12.8	53 26.8	53 41.7	....	....	....	....
		N.	2	....	57 39.1	57 5.6	56 33.0	56 15.9	56 0.0	55 44.0	55 29.8	....	....	....	....
	W.	N.	5	....	2 55.3	3 27.3	4 0.1	4 15.1	4 31.4	4 47.9	5 3.6	....	....	....	....
		S.	5	....	8 51.4	8 20.2	7 49.3	7 34.8	7 20.2	7 4.5	6 48.9	....	....	....	....
12	E.	N.	4 14 5.9	14 45.3	15 25.6	16 9.9	16 50.7	17 12.4	17 33.9	17 53.3	18 16.8	....	....	....	....
		S.	4 25 47.6	24 54.7	24 6.0	23 16.9	22 28.4	22 4.9	21 42.0	21 18.5	20 57.0	....	....	....	....
	W.	S.	5 43 55.0	44 47.9	45 39.0	46 29.5	47 16.8	47 41.8	48 4.3	48 25.1	48 51.1	....	....	....	....
		N.	5 55 41.8	55 1.0	54 20.1	53 37.1	52 57.1	52 35.6	52 15.5	51 53.3	51 32.3	....	....	....	....
14	E.	N.	17 55 37.4	56 35.3	57 30.0	58 30.8	59 34.3	0 0.0	0 31.3	1 7.4	1 41.1	1 57.1	2 10.0	2 29.8	2 51.3
		S.	18 15 16.0	13 21.0	11 41.0	10 0.8	8 39.2	7 55.8	7 16.8	6 34.0	5 57.0	5 39.1	5 22.2	4 59.2	4 40.1
	W.	S.	18 49 13.0	51 11.0	52 53.9	54 29.0	55 59.7	56 41.1	57 20.0	58 2.0	58 42.0	58 59.2	59 14.7	59 39.8	59 57.5
		N.	19 9 3.7	8 6.0	7 7.0	6 7.7	5 5.8	4 34.6	4 6.5	3 35.0	3 1.0	2 42.7	2 24.8	2 10.0	1 50.8
21	E.	N.	17	56 20.9	57 20.0	58 20.0	59 21.2	59 53.1	0 22.7	0 54.0	1 27.9	1 43.8	2 0.3	2 19.0	2 36.2
		S.	18	13 15.5	11 32.0	9 55.7	8 27.4	7 46.3	7 5.5	6 25.6	5 46.0	5 27.4	5 9.7	4 49.6	4 29.7
	W.	S.	18	51 0.6	52 38.9	54 19.9	55 49.6	56 32.1	57 11.6	57 50.4	58 29.7	58 47.6	59 6.0	59 27.5	59 46.7
		N.	19	7 55.4	6 58.3	5 56.7	4 55.9	4 25.2	3 55.2	3 22.9	2 48.2	2 33.5	2 15.9	1 59.0	1 40.7
22	E.	N.	2	8 26.0	9 9.0	9 52.0	10 35.6	10 58.0	11 19.2	11 42.0	12 4.1	12 15.1	....	....	....
		S.	2	19 5.4	18 12.7	17 19.8	16 30.5	16 4.1	15 41.0	15 17.0	14 53.0	14 39.8	....	....	....
	W.	S.	3	34 41.3	35 34.3	36 27.1	37 17.0	37 43.0	38 7.0	38 30.9	38 55.5	39 7.3	....	....	....
		N.	3	45 22.4	44 38.6	43 55.9	43 12.5	42 49.8	42 29.0	42 6.2	41 44.2	41 31.8	....	....	....
22	E.	S.	2 50 28.0	50 57.9	51 28 0	51 58.0	52 28.7	52 43.8	52 59.3	53 14.7	53 31.3	....	....	....	....
		N.	2 58 30.2	57 57.9	57 24.6	56 51.8	56 19.6	56 3.0	55 47.0	55 30.5	55 14.8	....	....	....	....
	W.	N.	5 1 35.2	2 8.1	2 40.6	3 13.3	3 45.3	4 2.0	4 18.0	4 35.6	4 50.0	....	....	....	....
		S.	5 9 36.4	9 7.1	8 36.8	8 6.0	7 34.9	7 19.8	7 3.6	6 49.0	6 32.8	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
μ Aurigæ......	148.3	138.4	−1.519	−1.561	+38 20 37.34	+1.62	+38 20 38.96	B.	
	151.7	137.3							
	156.2	139.2	−1.563						
	152.7	144.7							
θ Aurigæ......	151.8	137.5	−1.363	−1.406	37 12 4.47	+5.39	37 12 9.86	B.	
	148.4	140.9							
	156.3	147.9	−1.444						
	159.9	145.2							
40 Aurigæ......	151.5	141.0	−1.738	−1.555	38 29 23.31	+5.85	38 29 29.16	B.	
	156.2	138.9							
	156.4	143.7	−1.331						
	155.9	147.3							
α Lyræ........	138.5	128.7	−0.525	−0.483	38 40 37.88	−6.66	38 40 31.22	I.	Light, passing clouds; somewhat unsteady.
	131.1	132.5							
	127.4	129.8	−0.419						Light, passing clouds; somewhat unsteady.
	136.1	127.0							
α Lyræ........	145.1	107.3	−1.213	−1.349	38 40 37.17	−5.41	38 40 31.76	B.	Very unsteady.
	114.7	133.1							
	114.8	133.0	−1.413						
	146.3	105.5							
ρ Persei.......	140.3	151.5	−1.788	−1.839	38 23 17.45	−8.46	38 23 8.99	B.	
	167.9	128.1							
	174.7	134.7	−1.850						Somewhat misty; unsteady; image not good.
	150.0	160.4							
50 Persei	170.4	130.9	−1.644	−1.740	37 44 0.41	−3.75	37 43 56.66	B.	Misty.
	144.9	158.1							
	154.8	162.9	−1.825						
	177.4	140.1							
μ Aurigæ......	152.0	160.5	−1.738	−1.639	38 20 38.25	+1.21	38 20 39.46	B.	Misty.
	176.0	139.7							
	177.3	142.5	−1.519						
	156.3	166.8							
α Lyræ........	161.5	165.3	+0.269	+0.185	38 40 33.87	−2.33	38 40 31.54	I.	
	168.1	168.6							
	173.9	173.7	+0.100						
	177.2	179.0							
ρ Persei.......	168.6	172.6	+0.188	+0.208	38 23 18.72	−8.89	38 23 9.83	I.	
	178.7	177.7							
	190.1	189.5	+0.231						
	190.9	195.2							
50 Persei	179.4	180.1	−0.094	−0.046	37 44 0.62	−4.48	37 43 56.14	I.	
	188.1	186.0							
	199.8	200.4	0.000						
	200.7	200.1							
μ Aurigæ......	195.9	194.9	−0.313	−0.071	38 20 39.28	+0.26	38 20 39.54	I.	
	198.2	194.2							
	202.8	199.9	+0.169						
	200.5	206.1							
α Lyræ	147.3	148.7	+0.594	+0.777	38 40 32.97	−1.40	38 40 31.57	I.	Very unsteady; hazy.
	153.7	161.8							
	163.4	173.0	+0.950						Very unsteady; hazy.
	172.7	178.3							
α Lyræ	166.4	160.8	−0.850	−0.858	38 40 31.21	+0.52	38 40 31.73	I.	Passing clouds; well defined; steady.
	172.0	164.0							
	177.5	169.1	−0.863						Well defined; steady.
	182.9	177.5							
ρ Persei......	208.1	196.3	−1.206	−1.074	38 23 18.20	−8.88	38 23 9.32	I.	Clear; well defined.
	207.9	200.4							
	208.0	202.0	−0.981						Clear.
	212.0	202.3							
50 Persei	208.2	199.8	−1.250	−1.232	+37 44 1.00	−4.83	+37 43 56.17	I.	Clear.
	209.4	197.8							
	219.1	208.0	−1.281						Clear.
	219.1	209.7							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Jan. 22	E.	N.	4 13 51.4	14 32.3	15 13.0	15 55.2	16 36.5	16 58.0	17 18.2	17 39.4	18 1.1	....	....	....	....
		S.	4 25 36.6	24 45.3	23 55.7	23 4.0	22 17.0	21 52.8	21 29.8	21 6.4	20 42.5	....	....	....	....
	W.	S.	5 43 40.0	44 32.8	45 22.3	46 13.5	47 1.1	47 24.7	47 48.6	48 12.0	48 34.6	....	....	....	....
		N.	5 55 27.1	54 45.0	54 5.1	53 22.3	52 40.9	52 20.4	51 59.9	51 38.0	51 15.6	....	....	....	....
22	E.	S.	4	....	....	29 49.7	30 15.0	30 28.1	30 41.2	30 53.9	31 7.0	31 11.9	....	....	....
		N.	4	....	....	33 53.5	33 26.0	33 13.9	33 0.9	32 47.6	32 34.1	32 29.0	....	....	....
	W.	N.	7	....	....	8 2.8	8 29.4	8 43.0	8 56.5	9 9.4	9 21.3	9 28.0	....	....	....
		S.	7	....	....	12 6.7	11 40.8	11 28.0	11 14.4	11 2.5	10 50.4	10 44.0	....	....	....
22	E.	S.	5 12 39.3	13 24.0	14 11.4	14 59.0	15 49.4	16 11.7	16 37.8	17 1.6	17 28.1	....	....	....	....
		N.	5 26 26.9	25 21.4	24 19.9	23 17.8	22 17.5	21 49.9	21 22.0	20 53.2	20 25.8	....	....	....	....
	W.	N.	6 29 2.8	30 5.6	31 7.0	32 8.4	33 10.0	33 37.8	34 6.9	34 35.4	35 3.8	....	....	....	....
		S.	6 42 51.2	42 5.3	41 18.7	40 31.0	39 42.0	39 16.4	38 51.4	38 26.6	38 0.8	....	....	....	....
23	E.	S.	17 55 28.0	56 22.3	57 20.4	58 22.6	59 25.9	59 55.4	0 30.9	1 2.3	1 34.6	1 51.1	2 7.8	2 24.2	2 41.0
		N.	18 14 58.6	13 8.2	11 23.1	9 46.0	8 16.0	7 35.3	6 52.0	6 15.3	5 36.3	5 15.6	4 58.6	4 37.7	4 23.0
	W.	N.	18 49 17.8	51 3.8	52 47.7	54 27.0	55 56.0	56 37.7	57 21.0	58 0.2	58 39.6	58 56.5	59 15.8	59 33.4	59 51.8
		S.	19 8 49.9	7 54.3	6 55.0	5 54.0	4 51.4	4 21.5	3 48.0	3 15.9	2 42.7	2 27.6	2 11.1	1 52.7	1 37.0
24	E.	S.	2 7 41.7	8 22.5	9 6.0	9 50.8	10 34.6	10 56.5	11 20.5	11 42.7	12 5.1	....	....	....	....
		N.	2 19 53.9	18 59.4	18 5.9	17 13.7	16 21.0	15 56.8	15 32.4	15 7.0	14 42.0	....	....	....	....
	W.	N.	3 33 43.3	34 38.7	35 32.9	36 24.2	37 16.6	37 42.2	38 7.4	38 32.0	38 56.0	....	....	....	....
		S.	3 46 0.0	45 17.8	44 35.2	43 51.9	43 7.8	42 45.3	42 22.0	41 58.9	41 37.0	....	....	....	....
24	E.	N.	2 50 24.2	50 53.1	51 22.9	51 53.2	52 23.7	52 38.0	52 52.0	53 7.9	53 24.0	....	....	....	....
		S.	2 58 27.7	57 54.1	57 21.5	56 48.9	56 17.9	56 2.6	55 46.3	55 30.9	55 14.5	....	....	....	....
	W.	S.	5 1 31.3	2 4.2	2 36.5	3 8.6	3 40.5	3 56.8	4 12.0	4 27.8	4 43.7	....	....	....	....
		N.	5 9 34.4	9 4.0	8 34.9	8 4.4	7 34.6	7 20.9	7 4.8	6 50.0	6 34.6	....	....	....	....
24	E.	S.	4	....	....	15 51.8	16 35.5	16 56.4	17 17.8	17 40.7	18 1.2	18 12.3	18 23.0	18 34.8	....
		N.	4	....	....	23 0.9	22 10.4	21 47.3	21 22.6	20 59.0	20 35.4	20 25.0	20 13.5	20 1.3	....
	W.	N.	5	....	....	46 10.9	47 0.5	47 24.0	47 48.8	48 12.8	48 35.2	48 46.1	48 57.5	49 8.5	....
		S.	5	....	....	53 19.8	52 35.6	52 15.4	51 52.4	51 31.9	51 9.1	50 58.7	50 48.0	50 37.2	....
24	E.	N.	4 28 31.1	28 56.0	29 20.6	....	30 10.9	30 23.2	30 35.8	30 48.2	31 1.9	....	....	....	....
		S.	4 35 10.6	34 43.2	34 17.2	....	33 24.7	33 12.1	32 59.1	32 46.0	32 32.9	....	....	....	....
	W.	S.	7 6 39.2	7 6.0	7 33.5	....	8 26.6	8 38.8	8 50.8	9 3.5	9 18.9	....	....	....	....
		N.	7 13 19.0	12 55.0	12 29.8	....	11 39.6	11 27.4	11 14.9	11 2.0	10 49.7	....	....	....	....
24	E.	N.	5 12 33.9	13 20.4	14 5.9	14 53.8	15 42.0	....	16 28.4	16 54.0	17 20.0	17 31.2	17 43.9	17 58.1	18 10.9
		S.	5 26 22.0	25 19.2	24 16.0	23 15.2	22 18.5	....	21 23.1	20 54.9	20 27.6	20 14.9	20 0.7	19 46.5	19 33.3
	W.	S.	6 28 59.8	30 3.8	31 6.0	32 6.3	33 4.5	....	33 59.5	34 28.1	34 56.5	35 9.6	35 20.5	35 35.9	35 50.4
		N.	6 42 49.0	42 2.5	41 16.6	40 29.0	39 41.5	....	38 54.1	38 28.9	38 2.9	37 52.0	37 40.0	37 25.5	37 12.9
29	E.	N.	2 50 17.5	50 47.6	51 16.6	51 47.2	52 16.7	52 32.0	52 46.8	53 0.8	53 17.6	....	....	....	....
		S.	2 58 21.4	57 48.9	57 15.5	56 41.4	56 11.1	55 56.2	55 40.8	55 24.3	55 7.8	....	....	....	....
	W.	S.	5 1 24.9	1 57.9	2 30.0	3 2.0	3 33.2	3 50.1	4 5.0	4 20.0	4 36.9	....	....	....	....
		N.	5 9 26.6	8 56.0	8 27.6	7 57.3	7 27.5	7 12.4	6 57.9	6 42.9	6 26.9	....	....	....	....
29	E.	S.	4	....	....	15 46.0	16 29.5	16 50.0	17 13.2	17 34.4	17 56.3	18 6.8	18 16.4	18 28.6	....
		N.	4	....	....	22 53.3	22 3.1	21 39.6	21 16.5	20 53.0	20 30.0	20 17.9	20 7.0	19 54.3	....
	W.	N.	5	....	....	46 3.3	46 55.5	47 16.1	47 42.3	48 6.3	48 26.6	48 40.0	48 51.7	49 4.4	....
		S.	5	....	....	53 12.4	52 27.8	52 6.9	51 44.5	51 23.2	51 1.0	50 52.0	50 40.1	50 27.7	....
29	E.	N.	4	....	....	....	30 4.5	30 17.5	30 29.3	30 42.0	30 54.1	31 1.0	31 7.0	....	....
		S.	4	....	....	....	33 18.5	33 6.0	32 52.9	32 39.0	32 27.0	32 21.0	32 13.9	....	....
	W.	S.	7	....	....	....	8 18.5	8 31.9	8 43.7	8 57.0	9 10.1	9 16.4	9 22.6	....	....
		N.	7	....	....	....	11 31.9	11 18.9	11 7.2	10 54.1	10 42.0	10 35.8	10 29.6	....	....
29	E.	N.	5	....	....	....	15 35.4	16 0.4	16 23.8	16 49.0	....	17 26.4	17 37.8	17 52.4	18 4.9
		S.	5	....	....	....	22 13.4	21 44.3	21 16.8	20 48.3	....	20 9.0	19 55.9	19 39.5	19 26.5
	W.	S.	6	....	....	....	32 56.3	33 25.0	33 51.4	34 19.6	....	35 0.8	35 13.8	35 29.3	35 43.0
		N.	6	....	....	....	39 35.0	39 10.1	38 46.3	38 20.6	....	37 44.1	37 32.2	37 17.0	37 3.8
31	E.	N.	17 55 9.2	56 6.5	57 3.8	58 4.8	59 5.5	59 35.7	0 5.0	0 38.6	1 12.1	1 28.5	1 43.7	2 1.9	2 20.2
		S.	18 14 54.2	12 57.9	11 16.3	9 40.7	8 14.0	7 31.3	6 52.0	6 9.8	5 30.3	5 12.7	4 53.4	4 35.0	4 16.0
	W.	S.	18 48 52.0	50 48.5	52 30.2	54 6.8	55 34.1	56 15.8	56 57.7	57 36.4	58 16.7	58 35.0	58 55.2	59 13.4	59 33.2
		N.	19 8 41.0	7 43.9	6 46.5	5 45.5	4 45.2	4 14.1	3 43.9	3 12.0	2 39.0	2 21.9	2 6.8	1 48.3	1 29.6
Feb. 1	E.	S.	2 50 13.4	50 43.7	51 13.0	51 42.8	52 13.0	52 28.9	52 44.0	52 59.9	53 14.7	....	....	....	....
		N.	2 58 12.7	57 40.7	57 8.9	56 35.0	56 0.7	55 47.6	55 30.5	55 13.8	55 0.1	....	....	....	....
	W.	N.	5 1 20.6	1 52.9	2 25.4	2 58.9	3 31.4	3 46.9	4 3.7	4 19.1	4 34.8	....	....	....	....
		S.	5 9 21.6	8 52.9	8 22.4	7 52.0	7 21.9	7 7.5	6 51.2	6 36.2	6 20.6	....	....	....	....
1	E.	N.	4	....	....	15 36.4	16 20.2	16 40.3	17 0.8	17 23.5	17 46.0	....	18 8.0	18 18.8	....
		S.	4	....	....	22 51.3	22 0.8	21 38.0	21 15.5	20 51.0	20 27.0	....	20 4.8	19 53.0	....
	W.	S.	5	....	....	45 59.0	46 46.0	47 10.2	47 33.1	47 56.0	48 20.0	....	48 41.9	48 53.0	....
		N.	5	....	....	53 9.5	52 27.4	52 6.5	51 44.8	51 23.5	51 2.9	....	50 41.4	50 29.0	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
μ Aurigæ......	213.9	203.7	−0.988	−1.187	+38 20 39.95	−0.39	+38 20 39.56	I.	Clear.
	213.8	208.2							
	221.0	212.1	−1.444						Clear.
	225.4	211.2							
θ Aurigæ......	213.9	208.1	−1.038	−1.268	37 12 7.87	+3.35	37 12 11.22	I.	Somewhat unsteady.
	217.5	206.7							
	224.3	211.7	−1.588						Clear.
	222.2	209.4							
40 Aurigæ......	219.7	209.7	−1.538	−1.586	38 29 26.14	+3.62	38 29 29.76	I.	Clear.
	223.5	208.9							
	227.8	212.2	−1.713						Clear.
	224.1	212.3							
α Lyræ........	189.1	196.2	−0.150	−0.130	38 40 30.76	+1.16	38 40 31.92	I.	Clear; steady
	203.6	194.1							
	205.8	200.6	−0.113						Clear; steady.
	202.5	205.9							
ρ Persei.......	184.3	184.9	−0.363	−0.294	38 23 18.18	−8.92	38 23 9.26	I.	Clear; steady.
	189.6	183.2							
	196.6	191.0	−0.231						Clear; steady.
	196.3	198.2							
50 Persei.......	190.5	185.4	−0.194	−0.212	37 44 0.99	−4.96	37 43 56.03	I.	Clear; steady.
	189.2	191.2							
	199.5	198.8	−0.238						Clear; steady.
	200.1	197.0							
μ Aurigæ......	198.4	197.2	−0.306	−0.317	38 20 40.42	−0.60	38 20 39.82	I.	Clear; steady.
	200.1	196.4							
	200.6	195.8	−0.338						Clear; beautifully defined.
	199.1	198.5							
θ Aurigæ......	200.3	197.3	−0.244	−0.302	37 12 7.58	+3.11	37 12 10.69	I.	Clear; steady.
	199.5	198.6							
	200.4	198.8	−0.375						Clear; steady.
	200.6	196.2							
40 Aurigæ......	200.2	196.6	−0.275	−0.345	38 29 26.28	+3.36	38 29 29.64	I.	Clear; steady.
	198.6	197.8							
	199.9	198.5	−0.425						Very steady.
	201.9	196.5							
50 Persei.......	175.9	161.9	−1.363	−1.468	37 44 0.68	−5.01	37 43 55.67	I.	Clear; well defined.
	173.8	166.0							
	182.5	173.0	−1.594						Clear.
	187.4	171.4							
μ Aurigæ......	179.5	172.1	−1.388	−1.456	38 20 40.04	−0.90	38 20 39.14	I.	Clear.
	183.4	168.6							
	189.8	172.6	−1.538						Clear.
	186.3	178.9							
θ Aurigæ......	183.5	168.6	−1.394	−1.555	37 12 7.98	+2.70	37 12 10.68	I.	Clear.
	180.5	173.1							
	193.3	181.6	−1.769						Clear.
	196.3	179.7							
40 Aurigæ......	188.1	171.0	−1.569	−1.574	38 29 26.26	+2.90	38 29 29.16	I.	Clear.
	184.4	176.4							
	187.9	180.5	1.594						Clear.
	194.5	176.4							
α Lyræ........	177.5	141.0	−2.594	−2.136	38 40 28.28	+3.32	38 40 31.60	I.	
	173.7	168.7							
	176.0	168.0	1.663						
	186.7	168.1							
50 Persei.......	161.4	157.7	+0.681	+0.696	37 44 1.07	−4.94	37 43.56.13	I.	Hazy.
	150.9	165.5							
	172.3	185.3	+0.719						Clear.
	184.4	182.9							
μ Aurigæ......	167.1	179.8	+0.563	+0.588	+38 20 40.52	−0.96	+38 20 39.56	I.	Hazy.
	177.1	173.4							
	188.0	186.2	+0.619						Clear.
	180.6	192.3							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Feb. 1	E.	S.	4 28 19.1	28 43.9	29 9.9	29 35.2	30 0.9	30 13.5	30 26.2	30 38.3	30 52.0	....	....	....	....
		N.	4 34 58.5	34 31.3	34 4.0	33 37.3	33 11.0	32 57.8	32 43.7	32 31.3	32 17.9	....	....	....	....
	W.	N.	7 6 28.5	6 55.2	7 23.2	7 49.0	8 16.0	8 29.9	8 43.4	8 55.4	9 8.6	....	....	....	....
		S.	7 13 7.5	12 42.7	12 18.0	11 52.3	11 25.9	11 13.6	11 0.0	10 48.8	10 34.8	....	....	....	....
1	E.	S.	5	....	....	....	13 31.8	15 56.6	16 20.8	16 45.6	17 11.6	17 24.1	17 36.0	17 47.2	18 0.8
		N.	5	....	....	....	22 4.7	21 36.7	21 5.7	20 37.9	20 11.2	19 56.4	19 45.0	19 30.5	19 17.7
	W.	N.	6	....	....	....	32 57.3	33 24.0	33 54.9	34 22.1	34 50.1	35 1.9	35 14.3	35 29.3	35 40.3
		S.	6	....	....	....	39 24.4	39 2.5	38 37.1	38 12.3	37 47.3	37 35.5	37 23.9	37 10.8	36 57.2
1	E.	S.	17 55 8.4	56 6.0	57 2.7	58 2.4	59 6.9	59 34.2	0 9.0	0 43.1	1 15.0	1 29.6	1 47.1	. . .	2 20.2
		N.	18 14 37.6	12 47.4	11 3.1	9 26.0	7 55.0	7 16.1	6 34.0	5 53.9	5 15.0	4 56.0	4 38.9	....	4 0.0
	W.	N.	18 49 7.0	50 57.0	52 44.1	54 21.4	55 48.9	56 29.3	57 11.9	57 51.6	58 32.5	58 48.6	59 6.6	....	59 44.1
		S.	19 8 38.3	7 42.8	6 42.8	5 42.9	4 40.0	4 8.7	3 36.0	3 3.1	2 30.1	2 16.1	1 59.6	....	1 25.2
8	E.	N.	5	....	....	15 34.8	16 22.5	16 46.0	17 9.4	17 35.2	18 0.2	18 14.0	....	....	....
		S.	5	....	....	23 57.0	22 58.5	22 26.8	22 1.0	21 35.0	21 5.0	20 52.7	....	....	....
	W.	S.	6	....	....	32 48.1	33 43.5	34 9.8	34 37.2	35 6.5	35 35.6	35 48.0	....	....	....
		N.	6	....	....	41 8.2	40 20.4	39 56.0	39 32.1	39 8.0	38 41.7	38 30.7	....	....	....
9	E.	N.	4 29 7.9	29 33.0	29 57.9	30 23.6	30 48.0	31 1.6	31 12.7	31 25.2	31 38.1	....	....	....	....
		S.	4 35 48.8	35 21.2	34 56.0	34 28.4	34 3.0	33 49.2	33 37.1	33 24.4	33 10.9	....	....	....	....
	W.	S.	7 7 18.0	7 43.9	8 11.0	8 37.4	9 3.4	9 16.8	9 28.7	9 41.9	9 54.9	....	....	....	....
		N.	7 13 58.2	13 32.4	13 6.9	12 42.6	12 17.5	12 3.9	11 52.9	11 40.0	11 26.2	....	....	....	....
9	E.	S.	5 13 15.0	13 57.8	14 46.1	15 33.0	16 21.3	....	17 12.0	17 37.3	18 2.0	18 14.3	18 26.2	18 39.4	18 53.0
		N.	5 26 57.4	25 54.7	24 50.0	23 51.2	22 50.8	....	21 54.2	21 26.4	20 58.9	20 44.8	20 31.6	20 17.9	20 5.4
	W.	N.	6 29 39.0	30 40.6	31 45.1	32 45.3	33 43.0	....	34 42.3	35 11.2	35 38.0	35 50.3	36 4.0	36 18.0	36 31.4
		S.	6 43 26.9	42 41.0	41 54.1	41 5.1	40 17.4	....	39 25.6	39 2.4	38 36.7	38 24.4	38 12.2	37 59.3	37 44.9
9	E.	N.	5 46 46.8	47 9.8	47 34.0	47 57.9	48 20.1	48 32.0	48 43.9	48 56.0	49 8.8	....	....	....	....
		S.	5 53 3.6	52 38.1	52 13.0	51 48.0	51 23.9	51 11.3	51 0.0	50 48.2	50 35.4	....	....	....	....
	W.	S.	8 35 1.0	35 26.4	35 50.0	36 16.0	36 39.5	36 53.0	37 4.3	37 17.3	37 29.0	....	....	....	....
		N.	8 41 17.2	40 53.7	40 30.5	40 6.0	39 42.2	39 30.5	39 19.4	39 7.4	38 54.4	....	....	....	....
12	E.	N.	4	....	15 43.6	16 24.4	17 8.1	17 26.9	17 48.5	18 9.9	18 30.6	18 40.4	18 53.0	....	....
		S.	4	....	24 25.4	23 32.7	22 47.0	22 22.1	22 0.0	21 36.9	21 13.0	21 2.5	20 51.8	....	....
	W.	S.	5	....	45 53.1	46 45.1	47 34.6	47 55.9	48 20.9	48 43.2	49 9.0	49 18.3	49 30.0	....	....
		N.	5	....	54 37.3	53 53.3	53 13.1	52 51.3	52 31.3	52 7.5	51 46.3	51 36.0	51 27.0	....	....
12	E.	S.	4	....	....	30 20.7	30 46.8	30 59 3	31 12.9	31 24.7	....	....	....	....	....
		N.	4	....	....	34 23.6	33 58.0	33 42.6	33 29.4	33 16.6	....	....	....	....	....
	W.	N.	7	....	....	8 35.4	9 0.7	9 13.5	9 27.0	9 41.0	....	....	....	....	....
		S.	7	....	....	12 37.8	12 12.4	12 0.3	11 47.4	11 34.1	....	....	....	....	....
12	E.	N.	5 13 9.4	13 53.8	14 42.1	15 28.9	16 15.0	16 39.0	17 2.4	17 28.0	17 53.0	18 5.1	18 19.6	18 32.9	....
		S.	5 26 56.0	25 52.5	24 49.8	23 48.5	22 51.9	22 22.0	21 56.9	21 29.3	21 1.7	20 47.0	20 35.4	20 21.0	....
	W.	S.	6 29 34.4	30 38.0	31 39.3	32 41.4	33 39.0	34 5.7	34 36.7	35 1.3	35 29.7	35 42.0	35 54.6	36 7.5	....
		N.	6 43 23.8	42 38.0	41 50.7	41 3.3	40 15.9	39 51.1	39 27.1	38 59.9	38 36.0	38 26.0	38 13.0	37 58.5	....
19	E.	S.	5 12 59.0	13 45.9	14 33.0	15 19.2	16 9.2	16 33.2	16 58.7	17 24.0	17 49.4	18 1.4	18 11.3	18 25.8	18 37.2
		N.	5 26 47.9	25 43.5	24 40.8	23 40.0	22 41.5	22 12.8	21 44.0	21 15.9	20 48.5	20 35.9	20 20.8	20 8.6	19 56.4
	W.	N.	6 29 24.4	30 25.7	31 28.0	32 30.8	33 29.7	33 58.7	34 28.0	34 56.6	35 22.0	35 35.8	35 48.7	36 3.6	36 17.5
		S.	6 43 12.4	42 26.2	41 37.2	40 52.7	40 3.3	39 38.3	39 14.0	38 47.4	38 23.8	38 11.4	37 58.7	37 45.8	37 34.0
19	E.	N.	5 46 34.9	46 58.6	47 22.1	47 45.4	48 9.0	48 20.7	48 32.0	48 43.8	48 56.8	....	....	....	....
		S.	5 52 49.6	52 23.8	51 59.4	51 34.0	51 9.7	50 57.6	50 45.8	50 34.2	50 21.6	....	....	....	....
	W.	S.	8 34 47.0	35 10.7	35 37.0	36 1.5	36 26.8	36 38.7	36 50.9	37 3.0	37 14.0	....	....	....	....
		N.	8 41 2.0	40 39.5	40 16.9	39 53.4	39 28.5	39 17.0	39 6.0	38 55.2	38 42.6	....	....	....	....
19	E.	S.	7	37 24.0	38 8.3	38 52.3	39 39.0	39 59.9	40 24.3	40 47.4	41 10.2	41 21.2	41 31.7	41 43.5	....
		N.	7	48 19.0	47 23.6	46 27.8	45 34.9	45 9.7	44 44.1	44 18.8	43 53.3	43 42.0	43 30.6	43 17.9	....
	W.	N.	9	1 27.4	2 22.7	3 17.0	4 11.8	4 36.8	5 2.6	5 30.0	5 53.0	6 4.7	6 17.3	6 30.7	....
		S.	9	12 24.3	11 40.6	10 54.0	10 9.0	9 46.2	9 23.2	9 0.8	8 36.8	8 25.2	8 14.7	8 2.8	....
21	E.	S.	2 8 0.8	8 43.7	9 26.0	10 9.6	10 54.7	11 17.1	11 40.3	12 1.9	12 24.5	....	....	....	....
		N.	2 20 14.2	19 18.6	18 27.0	17 33.9	16 42.8	16 17.2	15 52.2	15 26.4	15 2.7	....	....	....	....
	W.	N.	3 34 8.3	35 2.7	35 56.7	36 49.4	37 40.6	38 5.6	38 31.4	38 56.0	39 20.8	....	....	....	....
		S.	3 46 22.7	45 40.6	44 58.0	44 13.7	43 30.0	43 8.2	42 44.7	42 22.4	42 0.2	....	....	....	....
21	E.	N.	5	13 42.1	14 27.4	15 16.1	16 2.4	....	16 52.1	17 15.7	17 42.9	17 54.0	18 4.3	18 18.7	....
		S.	5	25 39.7	24 38.0	23 37.3	22 39.9	....	21 42.5	21 15.9	20 49.5	20 36.0	20 24.0	20 10.0	....
	W.	S.	6	30 24.2	31 26.0	32 28.7	33 26.2	....	34 19.6	34 48.3	35 17.8	35 30.5	35 43.3	35 56.4	....
		N.	6	42 24.3	41 36.0	40 49.4	40 1.3	....	39 14.2	38 48.2	38 23.0	38 11.1	37 59.4	37 44.6	....
21	E.	N.	6 3 30.0	4 19.4	5 12.0	6 4.3	....	7 23.6	7 49.6	8 17.6	8 46.7	8 59.0	9 14.2	9 29.8	9 45.1
		S.	6 19 18.0	18 0.0	16 47.8	15 35.4	....	13 55.7	13 22.6	12 51.0	12 20.7	12 5.0	11 49.9	11 32.9	11 17.5
	W.	S.	7 10 10.7	11 24.5	12 37.5	13 52.1	....	15 31.9	16 4.0	16 35.8	17 7.9	17 22.0	17 38.0	17 51.2	18 10.0
		N.	7 25 57.3	25 6.9	24 15.6	23 22.0	....	22 2.0	21 36.7	21 8.9	20 40.0	20 27.1	20 13.0	20 0.0	19 43.6

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ' "	"	° ' "		
θ Aurigæ......	177.1	173.4	+0.644	+0.613	+37 12 7.67	+ 2.59	+37 12 10.26	I.	Clear.
	170.0	184.0							
	180.3	190.8	+0.601						
	185.8	185.0							
40 Aurigæ......	185.7	182.7	+0.438	+0.543	38 29 26.79	+ 2.77	38 29 29.56	I.	Clear.
	181.0	191.0							
	181.4	191.1	+0.656						Clear.
	185.6	186.4							
α Lyræ	171.6	177.4	+0.719	+0.904	38 40 27.20	+ 3.55	38 40 30.75	I.	Hazy.
	179.3	185.0							
	183.5	195.1	+1.100						Hazy.
	191.0	197.0							
40 Aurigæ......	174.0	188.3	+0.944	+0.959	38 29 28.28	+ 2.10	38 29 30.38	B.	Good seeing.
	188.0	188.8							
	197.4	200.1	+0.994						
	193.3	206.5							
θ Aurigæ......	171.4	186.2	+1.100	+0.977	37 12 8.77	+ 1.89	37 12 10.66	I.	Bad seeing.
	178.8	181.6							
	200.0	199.9	+0.894						Fair seeing.
	193.6	208.0							
40 Aurigæ......	182.0	182.8	+0.931	+1.018	38 29 27.46	+ 2.01	38 29 29.47	I.	Fair seeing.
	177.9	192.0							
	184.6	202.1	+1.125						Good seeing.
	197.4	197.9							
65 Aurigæ......	177.8	194.2	+1.163	+0.875	36 58 37.83	+ 7.57	36 58 45.40	I.	
	186.7	188.9							
	208.3	207.2	+0.632						
	201.3	211.9							
μ Aurigæ......	193.8	209.5	+0.831	+0.869	38 20 40.63	− 1.53	38 20 39.10	B.	Fair seeing; little hazy.
	203.0	200.6							
	203.4	203.5	+0.938						Fair seeing.
	196.5	211.4							
θ Aurigæ......	201.9	201.7	+0.938	+0.935	37 12 8.37	+ 1.76	37 12 10.13	B.	Image little diffuse; slightly hazy.
	193.8	209.0							
	200.0	215.9	+0.988						Very good seeing.
	208.4	208.3							
40 Aurigæ......	195.1	209.3	+0.850	+0.731	38 29 27.54	+ 1.84	38 29 29.38	B.	Good seeing.
	203.6	203.0							
	207.7	204.3	+0.638						Good seeing.
	199.7	213.3							
40 Aurigæ......	128.5	120.1	−0.313	−0.046	38 29 27.80	+ 1.49	38 29 29.29	I.	Good seeing.
	126.5	129.9							
	130.6	139.1	+0.225						Good seeing.
	140.0	135.1							
65 Aurigæ......	129.4	128.6	−0.544	−0.297	36 58 37.87	+ 6.76	36 58 44.63	I.	Good seeing.
	135.1	127.2							
	147.4	140.5	−0.044						Good seeing.
	141.9	148.1							
Groomb. 1450	143.8	135.8	0.200	+0.009	38 24 47.94	+10.92	38 24 58.86	I.	Good seeing.
	139.2	144.0							
	142.4	149.0	+0.219						Good seeing.
	146.3	143.2							
ρ Persei	112.3	108.5	+0.550	+0.552	38 23 16.65	− 7.38	38 23 9.27	I.	Faint.
	108.7	121.3							
	121.9	131.9	+0.525						Excellent seeing.
	133.0	131.4							
40 Aurigæ......	136.8	147.5	+0.594	+0.517	38 29 27.99	+ 1.31	38 29 29.30	B.	
	144.3	143.1							
	148.4	147.5	+0.425						
	144.4	152.1							
60 Aurigæ......	141.1	150.7	+0.519	+0.590	+38 34 52.12	+ 4.22	+38 34 56.34	B.	
	148.0	146.7							
	148.4	149.2	+0.644						
	146.6	156.1							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Feb. 21	E.	S.	5	46 55.0	47 17.9	47 42.5	48 6.2	....	48 30.8	48 43.0	....	....	....	....	....
		N.	5	52 21.1	51 56.1	51 30.9	51 6.1	....	50 41.8	50 28.9	....	....	....	....	....
	W.	N.	8	35 8.6	35 34.2	36 0.3	36 25.8	....	36 49.7	37 2.0	....	....	....	....	....
		S.	8	40 37.0	40 12.8	39 49.7	39 25.3	....	39 2.3	38 49.6	....	....	....	....	....
23	E.	N.	6	....	5 8.2	6 1.0	6 52.7	7 20.6	7 47.5	8 15.7	8 44.5	8 56.6	9 10.8	....	9 42.3
		S.	6	....	16 41.8	15 31.1	14 24.3	13 50.6	13 17.5	12 45.1	12 14.1	11 58.3	11 46.2	....	11 14.4
	W.	S.	7	....	12 34.0	13 49.0	14 58.1	15 29.5	16 0.9	16 33.2	17 5.6	17 20.4	17 35.5	....	18 7.0
		N.	7	....	24 12.7	23 18.9	22 25.8	21 58.8	21 32.8	21 3.2	20 35.9	20 22.0	20 7.6	....	19 38.4
23	E.	N.	7	....	38 3.0	38 48.0	39 30.0	39 53.6	....	40 38.7	41 1.7	41 12.1	41 22.5	41 33.7	41 47.2
		S.	7	....	47 16.9	46 23.1	45 32.2	45 4.7	....	44 15.1	43 50.7	43 36.6	43 25.0	43 14.5	43 2.0
	W.	S.	9	....	2 17.7	3 11.4	4 3.1	4 28.6	....	5 16.0	5 41.3	5 53.9	6 7.0	6 19.4	6 35.0
		N.	9	....	11 32.8	10 46.9	10 3.0	9 40.8	....	8 55.5	8 32.4	8 21.7	8 10.7	7 56.0	7 45.2
23	E.	S.	7	51 6.1	51 31.9	51 58.0	52 25.0	....	52 50.5	53 3.3	53 16.6	53 23.0	....	....	....
		N.	7	57 4.5	56 36.7	56 9.1	55 41.4	....	55 14.2	55 0.6	54 47.3	54 42.0	....	....	....
	W.	N.	10	25 1.3	25 29.8	25 57.3	26 24.0	....	26 50.9	27 4.5	27 17.7	27 24.5	....	....	....
		S.	10	30 59.8	30 33.6	30 7.5	29 40.5	....	29 14.0	29 1.9	28 48.2	28 43.0	....	....	....
26	E.	S.	7	....	37 58.3	38 41.3	....	39 49.0	40 12.2	40 34.9	40 57.8	41 9.9	41 21.4	....	....
		N.	7	....	47 15.0	46 22.1	....	45 2.6	44 36.8	44 10.0	43 45.8	43 33.9	43 22.0	....	....
	W.	N.	9	....	2 11.6	3 7.0	....	4 25.5	4 52.3	5 16.9	5 41.5	5 54.6	6 6.8	....	....
		S.	9	....	11 29.0	10 44.0	....	9 35.6	9 12.2	8 48.9	8 26.0	8 15.3	8 4.5	....	....
26	E.	N.	7	....	51 28.8	51 54.3	52 19.8	52 32.0	52 44.7	52 58.5	53 12.2	53 18.0	....	....	....
		S.	7	....	56 32.1	56 4.0	55 37.4	55 24.0	55 11.0	54 57.4	54 43.8	54 38.0	....	....	....
	W.	S.	10	....	25 25.1	25 52.8	26 18.5	26 32.6	26 45.5	26 58.3	27 12.0	27 18.1	....	....	....
		N.	10	....	30 27.9	30 2.0	29 37.2	29 24.3	29 11.4	28 58.8	28 45.8	28 39.4	....	....	....
26	E.	N.	17 55 30.8	56 26.2	....	58 24.7	59 25.1	59 56.1	0 26.6	0 59.0	1 31.5	1 48.0	2 2.6	2 21.5	2 40.0
		S.	18 14 56.2	13 2.4	....	9 50.5	8 22.9	7 40.3	7 3.8	6 21.0	5 42.9	5 25.0	5 8.5	4 47.6	4 28.0
	W.	S.	18 49 36.0	51 29.9	....	54 47.0	56 14.9	56 56.2	57 33.8	58 13.2	58 53.7	59 13.2	59 32.2	59 51.2	0 11.0
		N.	19 9 12.0	8 15.2	....	6 16.4	5 17.0	4 46.1	4 15.1	3 42.0	3 7.6	2 51.7	2 38.5	2 19.5	2 1.2
27	E.	N	4 28 44.3	29 8.8	29 33.0	29 58.6	30 24.0	30 35.9	30 48.5	31 0.7	31 13.3	31 19.5	....	....	....
		S.	4 35 22.9	34 55.1	34 29.7	34 2.8	33 36.2	33 23.3	33 12.1	32 57.8	32 46.5	32 39.0	....	....	....
	W.	S.	7 6 52.6	7 20.0	7 45.7	8 11.9	8 38.6	8 51.9	9 3.7	9 16.8	9 30.0	9 37.6	....	....	....
		N.	7 13 31.9	13 6.1	12 41.9	12 15.2	11 51.5	11 39.6	11 27.0	11 14.3	11 1.1	10 55.0	....	....	....
28	E.	N.	4 28 42.1	29 7.1	29 31.8	29 57.4	30 21.6	30 34.0	30 46.0	30 58.9	31 12.0	31 18.1	....	....	....
		S.	4 35 21.9	34 55.0	34 28.4	34 0.8	33 35.6	33 22.3	33 9.8	32 57.0	32 43.5	32 37.7	....	....	....
	W.	S.	7 6 50.2	7 18.0	7 43.4	8 10.2	8 37.2	8 50.0	9 2.6	9 15.3	9 28.1	9 35.0	....	....	....
		N.	7 13 29.4	13 5.2	12 40.0	12 15.0	11 50.6	11 37.6	11 25.8	11 13.0	11 0.8	10 53.7	....	....	....
28	E.	S.	5	....	14 18.0	15 4.5	15 52.9	16 16.4	16 42.6	17 8.0	17 32.5	17 43.6	17 56.0	18 8.9	18 22.6
		N.	5	....	24 27.5	23 26.8	22 25.0	22 0.5	21 28.4	21 1.0	20 34.8	20 21.1	20 9.1	19 55.8	19 41.9
	W.	N.	6	....	31 17.0	32 17.2	33 17.0	33 45.0	34 16.2	34 41.3	35 10.3	35 23.0	35 36.7	35 49.2	36 2.5
		S.	6	....	41 26.6	40 39.7	39 50.1	39 25.4	39 0.1	38 34.8	38 9.3	37 58.4	37 45.3	37 33.0	37 19.9
28	E.	N.	5	46 45.0	47 7.7	....	47 55.6	....	48 18.7	48 30.2	48 42.9	48 48.9	....	....	....
		S.	5	52 11.0	51 46.4	....	50 57.1	....	50 33.0	50 20.1	50 8.0	50 3.2	....	....	....
	W.	S.	8	35 0.3	35 25.0	....	36 13.8	....	36 37.6	36 50.0	37 2.4	37 7.7	....	....	....
		N.	8	40 26.4	40 1.5	....	39 14.8	....	38 51.6	38 39.7	38 27.5	38 21.8	....	....	....
28	E.	N.	7	....	37 54.9	38 38.3	39 24.7	39 45.9	40 7.9	40 30.1	40 54.1	41 5.0	41 16.9	41 29.6	....
		S.	7	....	47 12.9	46 17.1	45 24.0	44 59.1	44 34.4	44 9.5	43 44.4	43 33.0	43 20.5	43 7.4	....
	W.	S.	9	....	2 9.4	3 0.6	3 54.7	4 19.9	4 44.1	5 10.0	5 36.5	5 47.0	5 59.0	6 12.5	....
		N.	9	....	11 26.8	10 39.9	9 56.4	9 34.6	9 12.6	8 49.3	8 27.9	8 15.7	8 4.0	7 52.0	....
28	E.	S.	7	....	....	51 52.1	52 17.4	52 30.0	52 43.2	52 57.0	53 10.0	53 15.7	53 21.6	....	....
		N.	7	....	....	56 1.7	55 33.6	55 21.0	55 7.0	54 53.7	54 40.1	54 33.0	54 26.4	....	....
	W.	N.	10	....	....	25 48.7	26 17.0	26 30.5	26 44.6	26 57.5	27 10.6	27 17.0	27 23.8	....	....
		S.	10	....	....	30 0.3	29 33.7	29 20.9	29 7.5	28 53.6	28 41.2	28 34.9	28 29.1	....	....
Mar. 1	E.	S.	5	13 30.6	14 17.9	15 6.1	15 54.4	16 18.4	16 43.8	17 9.0	17 34.4	17 45.9	17 58.5	18 11.3	18 23.4
		N.	5	25 30.1	24 26.7	23 26.0	22 26.1	21 58.2	21 29.0	21 0.2	20 33.6	20 20.4	20 8.0	19 53.7	19 41.6
	W.	N.	6	30 11.8	31 14.0	32 15.8	33 15.1	33 44.0	34 12.7	34 40.8	35 7.8	35 20.2	35 33.6	35 48.0	36 0.4
		S.	6	42 12.0	41 25.8	40 37.5	39 47.7	39 23.4	38 58.6	38 33.1	38 8.0	37 56.0	37 44.0	37 31.0	37 18.5
1	E.	S.	6 3 19.7	4 8.5	5 0.3	5 53.1	6 47.9	7 14.8	7 44.2	8 12.0	8 39.0	8 52.1	9 7.0	9 21.0	9 35.5
		N.	6 19 9.4	17 52.5	16 36.5	15 24.6	14 14.0	13 42.3	13 7.7	12 35.8	12 4.2	11 48.0	11 34.6	11 18.7	11 3.6
	W.	N.	7 9 53.1	11 9.2	12 26.7	13 39.0	14 48.8	15 20.7	15 55.0	16 28.0	16 59.7	17 13.8	17 28.6	17 45.0	17 59.6
		S.	7 25 45.1	24 55.5	24 3.4	23 10.6	22 16.6	21 49.6	21 20.8	20 52.7	20 24.4	20 11.0	19 57.1	19 42.1	19 29.2
1	E.	N.	5 46 20.0	46 43.0	47 6.6	47 30.8	47 54.4	48 5.9	48 17.1	48 29.4	48 41.1	48 47.0	48 52.7	....	....
		S.	5 52 35.7	52 9.8	51 45.0	51 20.2	50 55.8	50 43.6	50 32.3	50 19.7	50 7.3	50 1.4	49 55.9	....	....
	W.	S.	8 34 34.0	34 58.4	35 23.9	35 49.1	36 13.5	36 25.1	36 36.5	36 49.5	37 1.9	37 7.0	37 13.8	....	....
		N.	8 40 48.5	40 24.5	40 1.3	39 37.3	39 13.9	39 2.1	38 51.0	38 38.5	38 26.1	38 21.0	38 15.2	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
65 Aurigæ......	145.1	143.9	+0.600	+0.602	+36 58 37.89	+ 6.50	+36 58 44.39	B.	
	140.1	150.9							
	151.8	160.4	+0.606						
	155.2	156.3							
60 Aurigæ......	114.0	126.8	+0.888	+0.850	38 34 52.37	+ 4.01	38 34 56.38	B.	
	135.4	136.8							
	149.5	151.3	+0.781						
	149.7	160.4							
Groomb. 1450.	151.5	160.6	+0.850	+0.867	38 24 49.59	+10.28	38 24 59.87	B.	
	155.5	160.0							
	163.2	166.4	+0.875						
	160.7	171.5							
38 Lyncis	156.1	160.0	+1.013	+0.989	37 17 35.70	+13.09	37 17 48.79	B.	
	153.4	165.7							
	163.4	172.4	+0.975						
	165.2	171.8							
Groomb. 1450.	159.6	150.6	+0.175	+0.204	38 24 49.09	+ 9.89	38 24 58.98	B.	
	151.5	163.3							
	164.9	172.4	+0.231						
	171.9	168.1							
38 Lyncis	151.4	164.6	+0.600	+0.284	37 17 35.41	+12.66	37 17 48.07	B.	Clear.
	162.2	158.6							
	176.1	170.1	−0.031						Light clouds.
	171.9	177.4							
α Lyræ.......	154.5	165.4	+0.550	+0.450	38 40 22.53	+ 8.79	38 40 31.32	I.	Clear; fair seeing.
	178.6	176.5							
	182.7	180.3	+0.350						Fair seeing.
	180.0	188.0							
θ Aurigæ......	152.0	168.8	+1.381	+1.152	37 12 9.14	+ 1.14	37 12 10.28	I.	Good seeing.
	162.6	167.9							
	175.2	178.6	+0.944						
	171.7	183.4							
θ Aurigæ......	130.2	143.8	+0.825	+0.806	37 12 8.79	+ 1.14	37 12 9.93	B.	Clear.
	139.6	139.2							
	150.2	149.3	+0.781						Clear.
	144.0	157.4							
40 Aurigæ......	143.1	140.0	+0.588	+0.825	38 29 27.40	+ 1.10	38 29 28.50	B.	Clear.
	136.2	148.7							
	139.0	156.0	+1.038						
	148.4	148.0							
65 Aurigæ......	136.7	151.2	+0.863	+0.858	36 58 39.07	+ 5.93	36 58 45.00	B.	Clear.
	144.8	144.1							
	156.0	154.7	+0.856						Clear.
	149.3	164.3							
Groomb. 1450.	144.1	158.6	+0.869	+0.892	38 24 49.92	+ 9.70	38 24 59.62	B.	Clear.
	153.1	152.5							
	159.2	157.6	+0.900						Clear.
	152.0	168.0							
38 Lyncis	152.9	153.5	+0.863	+0.742	37 17 35.50	+12.45	37 17 47.95	B.	Clear.
	146.9	160.1							
	160.0	172.4	+0.625						Image slightly diffuse.
	168.0	165.6							
40 Aurigæ......	130.3	138.1	+0.338	+0.357	38 29 28.44	+ 1.09	38 29 29.53	I.	Fine seeing.
	137.4	135.0							
	142.2	138.0	+0.363						Fine seeing.
	136.8	146.8							
60 Aurigæ......	132.5	142.3	+0.463	+0.439	38 34 52.82	+ 3.71	38 34 56.53	I.	Fair seeing.
	141.0	138.6							
	146.1	141.4	+0.400						Good seeing.
	140.6	151.7							
65 Aurigæ......	136.4	137.0	+0.719	+0.908	+36 58 38.61	+ 5.88	+36 58 44.49	I.	Fine seeing.
	132.0	142.9							
	140.4	159.7	+1.094						Hazy; faint.
	151.9	150.1							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Mar. 1	E.	S.	7	....	....	38 37.8	39 23.1	39 46.0	40 8.7	40 32.0	40 55.6	41 6.4	41 17.2	41 29.5	41 41.0
		N.	7	....	....	46 16.9	45 23.3	44 58.0	44 31.1	44 5.6	43 41.0	43 28.9	43 17.1	43 3.9	42 52.9
	W.	N.	9	....	....	3 0.5	3 54.9	4 20.0	4 47.7	5 12.6	5 36.0	5 47.9	6 1.7	6 12.2	6 25.0
		S.	9	....	....	10 40.1	9 54.0	9 32.5	9 8.8	8 44.8	8 22.0	8 10.9	7 59.6	7 48.0	7 37.1
1	E.	N.	7 50 33.3	50 58.1	51 23.6	51 50.0	52 15.4	52 28.4	52 40.5	52 53.6	53 7.2	53 13.2	53 20.0	....	....
		S.	7 57 21.6	56 54.2	56 27.2	55 59.1	55 32.9	55 19.2	55 6.6	54 53.7	54 39.9	54 33.3	54 27.7	....	....
	W.	S.	10 24 25.5	24 52.1	25 20.4	25 48.8	26 15.5	26 27.7	26 41.1	26 53.7	27 7.5	27 14.0	27 20.3	....	....
		N.	10 31 16.5	30 50.1	30 24.7	29 58.4	29 33.0	29 19.7	29 7.4	28 54.9	28 41.1	28 35.1	28 28.6	....	....
2	E.	N.	5	....	....	....	....	....	....	....	17 28.1	17 40.6	17 51.9	18 4.8	18 17.9
		S.	5	....	....	....	....	....	....	....	20 35.5	20 23.5	20 9.8	19 56.0	19 41.8
	W.	S.	6	....	....	....	....	....	....	....	35 2.4	35 15.0	35 28.2	35 42.4	35 56.8
		N.	6	....	....	....	....	....	....	....	38 10.6	37 58.0	37 44.9	37 31.7	37 18.9
2	E.	N.	6	....	....	5 51.2	6 42.9	7 9.9	7 36.4	8 3.0	8 33.5	8 46.4	8 58.3	9 14.6	....
		S.	6	....	....	15 20.9	14 11.8	13 39.3	13 9.0	12 37.8	12 5.4	11 50.0	11 34.9	11 19.1	....
	W.	S.	7	....	....	13 37.3	14 44.1	15 17.6	15 49.7	16 21.3	16 52.7	17 7.6	17 21.8	17 38.1	....
		N.	7	....	....	23 8.6	22 15.9	21 49.4	21 23.6	20 53.8	20 25.5	20 12.5	19 57.7	19 42.7	....
3	E.	N.	5	....	....	15 2.7	15 50.3	16. 14.7	16 39.7	17 4.5	17 29.2	17 42.6	17 54.7	18 8.5	18 22.4
		S.	5	....	....	23 23.2	22 25.3	21 57.8	21 30.4	21 1.5	20 33.6	20 22.0	20 8.8	19 53.5	19 38.8
	W.	S.	6	....	....	32 13.0	33 8.0	33 38.5	34 3.7	34 34.1	35 3.1	35 15.8	35 26.4	35 40.1	35 56.7
		N.	6	....	....	40 33.1	39 45.8	39 21.5	38 57.1	38 32.1	38 6.7	37 57.0	37 44.2	37 28.9	37 15.5
3	E.	N.	6	....	....	5 52.5	6 44.4	7 12.5	7 37.4	8 7.2	8 34.2	8 49.0	9 2.5	9 19.0	9 33.3
		S.	6	....	....	15 21.2	14 13.7	13 42.5	13 8.6	12 36.7	12 5.0	11 50.6	11 33.8	11 15.7	11 2.2
	W.	S.	7	....	....	13 34.0	14 41.2	15 14.8	15 45.4	16 19.4	16 52.5	17 6.0	17 21.4	17 39.2	17 55.0
		N.	7	....	....	23 6.8	22 13.1	21 47.1	21 20.7	20 51.4	20 22.8	20 10.3	19 55.5	19 40.6	19 25.0
3	E.	S.	5 46 18.0	46 40.1	47 2.9	47 27.5	47 51.1	48 3.8	48 16.1	48 28.4	48 40.0	48 46.1	....	....	....
		N.	5 52 32.8	52 8.5	51 42.6	51 17.5	50 53.1	50 41.4	50 28.1	50 16.1	50 3.2	49 58.2	....	....	....
	W.	N.	8 34 29.3	34 54.0	35 18.2	35 45.5	36 9.8	36 20.9	36 35.1	36 46.2	36 58.9	37 4.2	....	....	....
		S.	8 40 45.1	40 22.1	39 57.8	39 33.4	39 9.5	38 58.2	38 45.6	38 33.6	38 23.4	38 16.6	....	....	....
3	E.	N.	7	....	....	....	39 20.0	39 43.1	40 4.5	40 27.9	40 52.8	41 2.9	41 13.8	41 26.7	41 38.4
		S.	7	....	....	....	45 22.5	44 56.4	44 31.6	44 6.4	43 41.0	43 29.4	43 17.7	43 5.0	42 51.9
	W.	S.	9	....	....	....	3 45.6	4 15.6	4 38.8	5 5.6	5 29.3	5 40.0	5 53.0	6 7.1	6 20.5
		N.	9	....	....	....	9 51.7	9 30.0	9 7.0	8 45.0	8 20.5	8 9.4	7 59.6	7 45.8	7 33.8
3	E.	S.	7 50 30.2	50 54.9	51 20.2	51 47.4	52 13.0	52 26.0	52 39.0	52 52.7	53 5.7	53 12.5	....	....	....
		N.	7 57 22.7	56 54.3	56 25.8	55 58.4	55 31.5	55 18.4	55 3.6	54 50.9	54 37.7	54 31.1	....	....	....
	W.	N.	10 24 21.3	24 49.1	25 16.7	25 44.2	26 10.0	26 25.2	26 39.2	26 52.6	27 5.6	27 12.2	....	....	....
		S.	10 31 13.2	30 47.2	30 21.0	29 57.6	29 30.6	29 16.6	29 1.3	28 49.0	28 37.3	28 29.7	....	....	....
7	E.	S.	5	....	....	14 55.4	15 44.0	16 8.0	16 33.5	16 57.8	17 23.3	17 35.1	17 47.0	18 0.5	....
		N.	5	....	....	23 20.8	22 21.3	21 53.0	21 23.9	20 54.8	20 26.6	20 14.4	20 1.2	19 48.3	....
	W.	N.	6	....	....	32 3.0	33 4.3	33 31.6	34 0.4	34 28.0	34 54.6	35 7.9	35 22.0	35 35.5	....
		S.	6	....	....	40 28.4	39 40.5	39 16.7	38 49.8	38 24.6	37 59.6	37 47.4	37 35.3	37 23.0	....
7	E.	S.	6	....	....	5 43.0	6 38.4	7 5.0	7 31.9	8 1.6	8 29.0	8 42.7	8 56.7	9 10.8	9 25.4
		N.	6	....	....	15 21.7	14 10.6	13 38.4	13 3.6	12 31.5	11 59.4	11 45.0	11 29.0	11 13.9	10 58.0
	W.	N.	7	....	....	13 26.4	14 38.0	15 10.6	15 44.0	16 13.3	16 45.4	16 59.8	17 16.9	17 31.6	17 46.8
		S.	7	....	....	23 2.9	22 7.7	21 39.9	21 11.6	20 41.9	20 14.0	20 1.2	19 47.9	19 33.5	19 19.9
7	E.	N.	5 46 12.8	46 35.6	46 59.8	47 23.7	47 46.4	47 58.2	48 9.9	48 22.9	48 34.0	....	....	....	....
		S.	5 52 26.9	52 1.0	51 36.6	51 11.1	50 46.4	50 34.9	50 23.4	50 11.0	49 58.8	....	....	....	....
	W.	S.	8 34 23.8	34 48.9	35 14.5	35 39.4	36 3.2	36 16.1	36 26.7	36 39.6	36 52.7	....	....	....	....
		N.	8 40 38.3	40 14.1	39 51.4	39 27.4	39 4.4	38 52.6	38 41.9	38 28.5	38 16.6	....	....	....	....
7	E.	S.	7	....	....	38 28.9	39 14.6	39 37.0	39 59.7	40 23.0	40 45.9	40 57.6	41 8.8	41 20.2	....
		N.	7	....	....	46 10.0	45 18.4	44 52.2	44 25.4	43 59.6	43 34.8	43 23.0	43 10.6	42 57.5	....
	W.	N.	9	....	....	2 49.6	3 43.4	4 9.8	4 34.3	5 0.7	5 26.5	5 37.4	5 49.5	6 0.4	....
		S.	9........	....	....	10 31.2	9 46.3	9 23.5	8 59.5	8 36.6	8 13.7	8 2.7	7 51.0	7 39.7	....
7	E.	S.	17	....	....	58 9.0	59 15.0	59 45.1	0 17.1	0 50.4	1 20.3	1 39.7	1 54.7	2 10.3	2 26.0
		N.	18	....	....	9 32.5	8 5.0	7 28.8	6 45.9	6 9.4	5 25.6	5 9.1	4 49.8	4 32.3	4 14.7
	W.	N.	18	....	....	54 36.2	56 5.8	56 50.4	57 27.4	58 6.6	58 48.9	59 6.0	59 26.5	59 43.5	0 2.6
		S.	19	....	....	6 4.5	5 2.6	4 31.6	3 56.2	3 27.0	2 55.0	2 37.1	2 21.1	2 7.2	1 48.9
8	E.	N.	6	....	....	5 43.8	6 36.1	7 3.4	7 26.6	7 58.5	8 27.6	8 40.0	....	9 9.9	9 22.9
		S.	6	....	....	15 14.5	14 7.4	13 34.3	13 3.6	12 30.5	11 57.7	11 42.1	....	11 11.5	10 55.6
	W.	S.	7	....	....	13 27.0	14 35.5	15 10.1	15 39.8	16 12.8	16 45.1	17 0.5	....	17 31.8	17 48.0
		N.	7	....	....	23 0.5	22 7.5	21 39.7	21 12.8	20 46.1	20 16.6	20 3.8	....	19 35.1	19 20.5
8	E.	S.	5 46 9.2	....	46 56.0	47 20.6	47 44.2	47 56.0	48 8.1	48 20.3	48 32.8	48 38.4	....	....	....
		N.	5 52 25.3	....	51 35.4	51 10.0	50 45.1	50 33.3	50 19.8	50 7.2	49 56.8	49 50.4	....	....	....
	W.	N.	8 34 22.9	....	35 13.3	35 37.7	36 3.5	36 15.5	36 27.5	36 39.9	36 52.2	36 58.6	....	....	....
		S.	8 40 37.8	....	39 51.2	39 27.0	39 2.2	38 50.8	38 39.0	38 26.5	38 15.6	38 9.4	.....	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	″	° ′ ″	″	° ′ ″		
Groomb. 1450	142.1	150.2	+0.406	+0.418	+38 24 49.61	+ 9.62	+38 24 59.23	I.	Clear.
	148.0	146.4							
	151.8	150.3	+0.419						Hazy.
	147.9	156.1							
38 Lyncis	148.2	146.3	+1.006	+0.680	37 17 35.38	+12.36	37 17 47.74	I.	
	139.5	157.5							
	151.0	156.8	+0.350						Hazy.
	154.3	154.1							
40 Aurigæ.....	120.4	123.4	+0.619	+0.479	38 29 28.28	+ 1.06	38 29 29.34	B.	Good seeing.
	118.3	125.2							
	122.6	128.8	+0.313						
	127.7	126.5							
60 Aurigæ......	122.6	123.4	+0.650	+0.590	38 34 52.44	+ 3.66	38 34 56.10	B.	Good seeing.
	120.2	129.8							
	124.0	131.1	+0.500						Hazy.
	127.1	128.0							
40 Aurigæ......	159.8	151.6	−0.825	−0.767	38 29 28.31	+ 1.03	38 29 29.34	I.	
	162.3	157.3							
	168.1	163.9	−0.700						
	171.5	164.5							
60 Aurigæ......	167.8	161.9	−0.719	−0.713	38 34 52.97	+ 3.60	38 34 56.57	I.	
	168.2	162.6							
	169.5	164.1	−0.700						
	170.5	164.7							
65 Aurigæ......	164.8	159.7	−0.644	−0.760	36 58 38.72	+ 5.74	36 58 44.46	I.	
	166.7	161.5							
	176.6	170.4	−0.894						
	179.3	171.2							
Groomb. 1450	172.1	164.1	−0.894	−0.847	38 24 49.99	+ 9.41	38 24 59.40	I.	
	172.1	165.8							
	180.2	171.8	−0.800						
	177.8	173.4							
38 Lyncis	172.1	165.8	−0.875	−0.495	37 17 36.14	+12.14	37 17 48.28	I.	
	174.7	167.0							
	168.0	171.6	−0.125						
	174.2	168.6							
40 Aurigæ......	156.5	164.9	0.356	−0.503	38 29 28.65	+ 0.78	38 29 29.43	B.	Clouds; image unsteady.
	178.4	164.3							
	195.5	184.4	−0.656						Fair seeing.
	192.4	193.0							
60 Aurigæ......	182.7	184.6	0.606	−0.647	38 34 53.62	+ 3.21	38 34 56.83	B.	Fair seeing; windy.
	194.7	183.1							
	202.9	189.7	0.700						Fair seeing; windy.
	198.6	200.0							
65 Aurigæ......	183.9	171.5	−0.538	−0.613	36 58 39.55	+ 5.30	36 58 44.85	B.	Fair seeing; unsteady.
	180.2	184.0							
	207.3	203.3	0.719						Fair seeing; unsteady.
	209.2	201.7							
Groomb. 1450	200.0	199.6	0.719	−0.590	38 24 50.21	+ 8.83	38 24 59.04	B.	Tolerable seeing.
	206.5	195.4							
	210.1	202.8	0.481						Tolerable seeing.
	207.8	207.4							
α Lyræ........	180.1	191.1	+0.225	+0.142	38 40 21.45	+ 9.92	38 40 31.37	I.	
	200.3	192.9							
	208.2	203.8	+0.063						
	207.1	212.5							
60 Aurigæ......	194.8	188.8	+0.381	+0.459	38 34 53.28	+ 3.14	38 34 56.42	I.	
	188.3	200.4							
	197.8	207.4	+0.550						
	204.2	203.4							
65 Aurigæ......	179.3	193.0	+0.594	+0.409	+36 58 38.60	+ 5.21	+36 58 43.81	I.	
	192.5	188.3							
	206.4	204.8	+0.244						
	203.6	209.1							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Mar. 8	E.	N.	7	....	....	38 27.3	39 12.4	39 34.1	39 56.5	40 21.4	40 44.4	40 54.2	11 5.4	41 19.0	41. 30.8
		S.	7	....	....	46 7.6	45 14.7	44 49.2	44 25.5	43 58.6	43 33.6	43 23.5	43 9.8	42 56.7	42. 44.7
	W.	S.	9	....	....	2 50.6	3 42.2	4 6.9	4 31.7	4 58.9	5 22.9	5 34.4	5 46.5	5 59.2	6. 14.0
		N.	9	....	....	10 29.0	9 44.6	9 22.7	9 0.0	8 37.6	8 14.0	8 3.2	7 51.8	7 39.5	7. 26.5
13	E.	S.	6	....	....	5 38.0	6 33.0	6 58.5	7 27.3	7 54.7	8 23.2	8 37.2	8 50.6	9 6.0	9 19.7
		N.	6	....	....	15 7.3	13 57.0	13 24.1	12 50.7	12 18.2	11 47.3	11 33.0	11 18.0	11 1.8	10 47.0
	W.	N.	7	....	....	13 20.7	14 31.4	15 4.6	15 37.1	16 8.9	16 41.5	16 55.9	17 9.5	17 26.1	17 40.0
		S.	7	....	....	22 53.7	21 57.3	21 30.6	21 2.0	20 34.2	20 5.4	19 51.6	19 38.1	19 23.0	19 9.0
13	E.	N.	5 46 2.9	46 26.0	46 49.6	47 13.6	47 37.3	47 48.8	48 0.3	48 12.0	48 24.1	48 30.2	....	....	....
		S.	5 52 18.1	51 53.5	51 28.7	51 3.5	50 39.0	50 26.9	50 14.7	50 2.8	49 50.6	49 44.8	....	....	....
	W.	S.	8 34 15.4	34 41.1	35 5.5	35 29.8	35 54.7	36 7.4	36 18.6	36 30.6	36 42.9	36 48.7	....	....	....
		N.	8 40 30.0	40 6.0	39 43.0	39 19.0	38 55.4	38 43.5	38 32.5	38 20.6	38 8.4	38 2.4	....	....	....
13	E.	S.	7	....	....	38 23.3	39 8.1	39 30.2	39 54.0	40 16.7	40 39.6	40 50.9	41 2.5	41 14.3	41 25.7
		N.	7	....	....	46 1.0	45 6.9	44 41.2	44 15.4	43 49.0	43 24.2	43 13.7	43 1.3	42 48.4	42 37.5
	W.	N.	9	....	....	2 42.1	3 35.8	4 1.1	4 27.0	4 53.0	5 17.2	5 30.1	5 41.5	5 53.5	6 5.3
		S.	9	....	....	10 22.0	9 35.6	9 12.8	8 50.0	8 26.9	8 4.5	7 52.0	7 41.6	7 29.1	7 18.1
13	E.	N.	7 50 17.0	50 42.9	51 7.3	51 33.9	51 59.3	52 11.9	52 23.8	52 37.6	52 50.6	52 56.6	....	....	....
		S.	7 57 6.7	56 38.6	56 11.4	55 44.1	55 17.0	55 4.4	54 51.2	54 37.9	54 24.1	54 18.7	....	....	....
	W.	S.	10 24 6.4	24 34.0	25 2.0	25 29.5	25 56.0	26 9.4	26 21.7	26 35.9	26 49.0	26 55.5	....	....	....
		N.	10 30 56.4	30 31.6	30 4.9	29 39.2	29 13.8	29 1.1	28 48.8	28 35.2	28 22.6	28 16.0	....	....	....
14	E.	N.	7	....	....	....	....	39 27.0	39 47.8	40 11.0	40 35.7	40 45.7	40 56.7	....	....
		S.	7	....	....	....	....	44 43.0	44 17.4	43 51.7	43 27.5	43 15.7	43 3.9	....	....
	W.	S.	9	....	....	....	....	3 58.3	4 22.4	4 47.0	5 12.9	5 24.9	5 36.6	....	....
		N.	9	....	....	....	....	9 13.5	8 52.3	8 28.9	8 5.7	7 53.9	7 42.7	....	....
14	E.	S.	7	....	....	58 41.4	59 5.1	59 16.1	59 28.5	59 40.4	59 52.2	59 58.0	....	....	....
		N.	8	....	....	2 26.2	2 1.3	1 49.5	1 37.3	1 25.4	1 13.2	1 8.3	....	....	....
	W.	N.	10	....	....	49 44.4	50 9.0	50 20.4	50 32.8	50 44.9	50 56.7	51 2.7	....	....	....
		S.	10	....	....	53 29.3	53 5.7	52 53.6	52 41.5	52 29.7	52 17.8	52 12.5	....	....	....
20	E.	S.	7	....	....	38 36.0	39 1.0	39 23.0	39 46.0	40 10.0	40 33.5	40 44.7	40 56.0	41 7.3	41 19.0
		N.	7	....	....	45 27.4	44 59.5	44 35.0	44 9.3	43 44.7	43 17.5	43 6.7	42 52.8	42 41.8	42 29.9
	W.	N.	9	....	....	2 59.7	3 26.4	3 50.0	4 15.8	4 41.7	5 6.4	5 17.2	5 30.2	5 40.9	5 54.0
		S.	9	....	....	9 48.0	9 24.9	9 2.6	8 39.0	8 15.6	7 52.8	7 40.7	7 31.1	7 19.0	7 6.8
20	E.	S.	8	....	....	39 35.4	40 10.6	40 39.0	41 11.4	41 44.2	42 17.0	42 34.1	42 51.8	43 7.7	43 26.0
		N.	8	....	....	49 55.6	49 9.4	48 31.8	47 45.5	47 6.9	46 25.2	46 8.8	45 50.0	45 30.0	45 12.6
	W.	N.	9	....	....	35 7.6	35 55.3	36 35.0	37 18.6	37 58.4	38 36.6	38 56.5	39 15.0	39 33.9	39 52.3
		S.	9	....	....	45 30.2	44 58.0	44 27.4	43 54.5	43 21.3	42 48.7	42 31.7	42 16.9	41 56.8	41 41.6
21	E.	S.	7	37 51.4	38 13.8	38 36.0	38 59.1	39 20.4	39 44.9	40 8.6	40 31.0	40 43.5	40 54.0	....	....
		N.	7	46 16.7	45 51.0	45 22.6	44 56.0	44 33.2	44 5.5	43 41.1	43 15.6	43 3.9	42 50.3	....	....
	W.	N.	9	2 4.4	2 29.7	2 56.6	3 24.6	3 50.3	4 15.4	4 41.0	5 7.0	5 18.0	5 29.5	....	....
		S.	9	10 30.6	10 9.0	9 46.9	9 23.1	9 0.9	8 38.5	8 15.8	7 53.4	7 42.6	7 29.5	....	....
21	E.	S	8	....	....	39 33.1	40 6.1	40 34.7	41 9.9	41 42.4	42 15.8	42 31.1	42 47.0	43 4.7	43 21.5
		N.	8	....	....	49 52.6	49 9.0	48 28.0	47 44.4	47 2.5	46 22.8	46 4.0	45 46.0	45 24.9	45 11.0
	W.	N.	9	....	....	35 8.5	35 58.0	36 35.7	37 19.0	37 59.9	38 37.3	38 56.0	39 14.8	39 34.0	39 52.0
		S.	9	....	....	45 29.9	44 56.6	44 25.9	43 52.0	43 20.0	42 46.0	42 30.5	42 13.8	41 56.6	41 40.7
21	E.	N.	7	....	58 33.2	58 43.5	58 56.2	59 7.0	59 18.9	59 30.4	59 42.5	....	....	....	....
		S.	8	....	2 19.0	2 7.0	1 54.6	1 42.7	1 31.0	1 19.4	1 8.0	....	....	....	....
	W.	S.	10	....	49 34.4	49 46.3	49 58.0	50 10.0	50 22.1	50 32.6	50 45.8	....	....	....	....
		N.	10	....	53 19.6	53 8.3	52 56.3	52 44.8	52 34.1	52 22.2	52 10.2	....	....	....	....
21	E.	S.	9	....	....	....	....	....	51 20.0	51 46.0	52 11.7	52 26.4	52 37.2	52 49.7	....
		N.	9	....	....	....	....	....	56 16.6	55 47.6	55 18.8	55 4.9	54 50.9	54 37.3	....
	W.	N.	11	....	....	....	....	....	6 21.3	6 49.6	7 17.9	7 32.0	7 45.8	8 0.2	....
		S.	11	....	....	....	....	....	11 16.9	10 50.0	10 24.0	10 13.0	10 0.1	9 46.9	....
22	E.	S.	7 50 57.0	51 9.4	51 21.8	51 35.5	51 49.8	52 1.6	52 15.8	52 28.1	52 41.5	52 47.4	....	....	....
		N.	7 56 0.6	55 45.5	55 33.0	55 18.6	55 4.4	54 52.5	54 38.1	54 24.9	54 11.4	54 5.8	....	....	....
	W.	N.	10 24 50.1	25 3.4	25 18.5	25 32.8	25 47.0	25 59.4	26 13.0	26 25.4	26 39.4	26 45.4	....	....	....
		S.	10 29 53.3	29 40.8	29 27.8	29 14.7	29 1.4	28 49.6	28 35.9	28 22.4	28 9.0	28 3.0	....	....	....
22	E.	N.	8	....	....	39 29.2	....	40 32.1	41 3.7	41 34.9	42 10.7	42 26.3	42 4[illegible].6	43 0.0	43 17.3
		S.	8	....	....	49 55.0	....	48 30.4	47 49.5	47 7.8	46 26.7	46 9.0	4[illegible] [illegible]0.0	45 33.4	45 11.3
	W.	S.	9	....	....	35 4.2	....	36 33.0	37 12.6	37 54.0	38 33.0	38 53.6	39 11.6	39 31.5	39 5[illegible].0
		N.	9	....	....	45 32.5	....	44 29.5	43 59.0	43 25.0	42 51.5	42 36.4	42 20.0	41 59.9	41 44.2
22	E.	N.	9	....	....	....	50 23.4	50 50.9	51 15.0	51 40.4	....	....	....	52 46.0	53 0.6
		S.	9	....	....	....	57 16.0	56 47.0	56 19.0	55 50.2	....	....	....	54 40.5	54 25.0
	W.	S.	11	....	....	....	5 17.7	5 49.0	6 17.4	6 43.5	....	....	....	7 55.6	8 11.6
		N.	11	....	....	....	12 10.2	11 45.0	11 22.5	10 55.0	....	....	....	9 48.2	9 34.9

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
Groomb. 1450	205.1	202.9	+0.269	+0.338	+38 24 50.58	+ 8.68	+38 24 59.26	I.	
	201.4	207.9							
	203.1	209.7	+0.419						
	207.3	207.4							
60 Aurigæ......	133.9	143.7	−0.150	−0.099	38 34 53.54	+ 2.97	38 34 56.51	I.	
	145.7	133.5							
	149.9	139.3	−0.044						
	141.2	151.1							
65 Aurigæ......	143.7	131.2	−0.113	−−0.150	36 58 39.62	+ 4.95	36 58 44.57	I.	
	133.4	144.1							
	148.6	156.2	−0.188						
	159.7	149.1							
Groomb. 1450	144.1	149.8	−0.131	−0.177	38 24 51.24	+ 8.13	38 24 59.37	I.	
	152.1	144.3							
	160.6	151.0	−0.219						
	153.9	160.0							
38 Lyncis	152.2	144.6	−0.113	−0.312	37 17 38.23	+10.70	37 17 48.93	I.	
	146.2	152.0							
	161.6	162.0	−0.513						
	168.1	159.5							
Groomb. 1450	141.2	128.0	−0.550	−0.529	38 24 50.79	+ 8.06	38 24 58.85	B.	Good seeing.
	132.8	137.2							
	136.0	140.0	−0.488						Fair seeing.
	143.8	132.0							
10 Leonis Min ..	132.2	138.7	−0.481	−0.512	36 54 46.50	+11.40	36 54 57.90	B.	Good seeing.
	143.5	129.3							
	146.9	133.3	−0.538						Clouds.
	138.3	143.3							
Groomb. 1450	208.9	189.9	−2.600	−2.434	38 24 51.79	+ 7.40	38 24 59.19	I.	
	212.0	189.4							
	219.4	196.3	−2.356						
	216.1	201.5							
Lalande 18362	213.9	197.5	−2.456	−2.397	38 40 48.88	+ 9.56	38 40 58.44	I.	
	219.1	196.2							
	221.9	196.9	−2.425						
	217.5	203.7							
Groomb. 1450	210.2	203.3	−1.338	−1.310	38 24 51.77	+ 7.25	38 24 59.02	B.	Unsteady; not well defined.
	213.8	199.3							
	219.8	203.2	−1.338						Unsteady; not well defined.
	215.3	210.5							
Lalande 18362	212.4	206.8	−1.438	−1.400	38 40 48.75	+ 9.39	38 40 58.14	B.	Not good seeing; unsteady.
	219.9	202.5							
	221.8	204.8	−1.419						Not good seeing; unsteady.
	217.6	211.9							
10 Leonis Min ..	215.2	198.6	−1.375	−1.416	36 54 48.03	+10.42	36 54 58.45	B.	Not good seeing.
	209.4	204.0							
	220.9	214.4	−1.563						Not good seeing.
	227.9	209.4							
38 Leonis Min ..	218.4	211.8	−1.469	−1.464	38 30 57.24	+12.70	38 31 9.94	B.	Not good seeing; unsteady.
	224.0	207.1							
	227.9	210.1	−1.531						
	222.7	216.0							
38 Lyncis	209.2	216.0	−0.375	−0.431	37 17 38.32	+ 9.48	37 17 47.80	I.	Good seeing.
	220.8	208.0							
	226.9	214.2	−0.519						Fair seeing; light clouds.
	219.4	223.8							
Lalande 18362	223.6	209.6	−0.356	−0.375	38 40 49.02	+ 9.22	38 40 58.24	I.	
	214.0	222.3							
	216.0	223.4	−0.413						
	226.8	212.8							
38 Leonis Min ..	226.8	212.8	−0.569	−0.466	+38 30 57.36	+12.48	+38 31 9.84	I.	
	218.1	223.0							
	219.2	225.0	−0.388						Clouds.
	228.0	216.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Mar. 24	E.	N.	4	....	30 24.3	30 36.5	30 49.1	31 1.6	31 13.8	31 26.0	31 40.0	31 45.2	....	....	....
		S.	4	....	34 31.0	34 18.0	34 4.5	33 51.8	33 39.6	33 25.5	33 13.0	33 6.8	....	....	....
	W.	S.	7	....	8 37.3	8 49.3	9 2.7	9 15.8	9 27.7	9 40.6	9 54.5	10 0 8	....	....	....
		N.	7	....	12 41.4	12 28.9	12 17.4	12 4.4	11 52.4	11 40.0	11 26.7	11 20.5	....	....	....
24	E.	N.	7	....	....	39 29.7	39 51.2	40 15.9	40 36.7	41 0.3	41 23.4	41 34.1	....	41 58.0	42 10.3
		S.	7	....	....	46 23.5	45 57.7	45 30.0	45 6.3	44 40.3	44 16.0	44 3.4	....	43 39.5	43 26.8
	W.	S.	9	....	....	3 51.0	4 16.9	4 43.4	5 9.5	5 34.6	6 0.2	6 11.2	....	6 36.4	6 50.4
		N.	9	....	....	10 46.3	10 23.1	10 0.7	9 39.3	9 17.2	8 52.4	8 42.0	....	8 16.4	8 4.4
24	E.	N.	8	....	....	40 28.6	40 59.0	41 30.8	42 0.2	42 33.3	43 9.5	43 25.0	43 38.8	43 57.9	44 17.1
		S.	8	....	....	50 53.3	50 5.9	49 26.0	48 44.5	48 4.8	47 23.2	47 5.4	46 46.9	46 27.8	46 8.7
	W.	S.	9	....	....	36 1.8	36 48.5	37 27.2	38 10.8	38 51.6	39 31.6	39 50.9	40 9.8	40 26.8	40 48.5
		N.	9	....	....	46 30.0	45 58.0	45 29.0	44 55.7	44 22.8	43 50.8	43 34.5	43 16.6	43 1.5	42 38.9
24	E.	S.	7 59 6.8	59 18.2	59 29.5	59 42.0	59 53.7	0 5.1	0 16.8	0 29.2	0 40.8	....	....	....	....
		N.	8 3 38.7	3 25.6	3 14.0	3 0.8	2 49.3	2 37.9	2 25.4	2 12.8	2 2.0	....	....	....	....
	W.	N.	10 50 6.6	50 19.5	50 31.4	50 44.0	50 57.0	51 7.5	51 19.9	51 31.9	51 43.5	....	....	....	....
		S.	10 54 39.5	54 27.6	54 16.0	54 3.9	53 52.5	53 42.0	53 29.0	53 17.5	53 5.5	....	....	....	....
24	E.	N.	9	....	....	50 59.6	51 23.2	51 49.4	52 13.6	52 38.8	53 6.6	....	53 30.2	53 45.0	53 59.0
		S.	9	....	....	58 45.2	58 14.4	57 46.0	57 16.1	56 49.1	56 18.5	....	55 52.0	55 38.4	55 23.9
	W.	S.	11	....	....	5 46.0	6 16.3	6 45.0	7 14.5	7 43.7	8 10.9	....	8 40.0	8 55.8	9 8.2
		N.	11	....	....	13 32.0	13 7.9	12 42.2	12 17.1	11 52.3	11 25.1	....	11 0.9	10 46.2	10 33.0
27	E.	N.	17	....	58 44.9	59 15.1	59 44.9	....	0 46.7	1 18.0	1 51.4	2 7.7	2 23.2	2 41.6	....
		S.	18	....	10 14.1	9 29.7	8 47.9	....	7 24.2	6 44.6	6 6.0	5 47.3	5 29.9	5 9.4	....
	W.	S.	18	....	55 8.2	55 51.9	56 34.6	....	57 55.6	58 34.9	59 15.0	59 33.5	59 52.0	0 11.4	....
		N.	19	....	6 36.9	6 7.0	5 37.0	....	4 35.2	4 2.5	3 29.8	3 13.0	2 55.7	2 38.0	....
Apr. 3	E.	N.	7	....	....	39 18.7	39 39.8	40 3.6	40 25.3	40 48.5	41 11.4	41 22.8	41 34.0	41 46.8	41 59.6
		S.	7	....	....	46 10.7	45 45.2	45 18.6	44 53.1	44 29.4	44 3.7	43 52.2	43 40.0	43 27.3	43 14.0
	W.	S.	9	....	....	3 40.1	4 6.1	4 31.7	4 57.0	5 21.4	5 47.8	5 59.4	6 10.9	6 25.0	6 37.5
		N.	9	....	....	10 33.4	10 10.6	9 47.6	9 26.8	9 3.5	8 40.1	8 28.4	8 17.0	8 4.2	7 51.5
3	E.	S.	8	....	....	40 19.0	40 51.5	41 21.4	41 54.0	42 27.4	43 0.5	43 16.1	43 32.1	43 50.8	44 7.5
		N.	8	....	....	50 36.4	49 51.8	49 11.6	48 28.4	47 46.2	47 7.4	46 49.5	46 31.5	46 11.5	45 53.1
	W.	N.	9	....	....	35 55.1	36 41.8	37 21.7	38 7.0	38 44.7	39 25.7	39 43.6	40 1.5	40 21.0	40 38.9
		S.	9	....	....	46 13.1	45 40.4	45 11.0	44 38.1	44 4.2	43 33.0	43 15.7	43 0.0	42 42.5	42 23.6
3	E.	N.	18	....	....	....	....	....	0 36.4	1 9.4	1 41.6	1 58.8	2 16.5	2 34.9	2 52.3
		S.	18	....	....	....	....	....	7 14.1	6 35.4	5 57.1	5 38.6	5 20.0	4 59.4	4 41.7
	W.	S.	18	....	....	....	....	....	57 52.0	58 31.0	59 10.4	59 28.1	59 46.6	0 6.3	0 24.5
		N.	19	....	....	....	....	....	4 28.8	3 57.0	3 23.7	3 7.0	2 50.3	2 32.5	2 14.1
4	E.	N.	8	....	....	....	40 44.3	41 16.8	41 47.0	....	....	43 9.9	43 28.0	43 45.7	....
		S.	8	....	....	....	49 55.7	49 12.5	48 31.9	....	....	46 52.2	46 33.0	46 14.2	....
	W.	S.	9	....	....	....	36 30.8	37 14.1	37 55.5	....	....	39 34.0	39 52.0	40 11.0	....
		N.	9	....	....	....	45 45.4	45 12.5	44 43.7	....	....	43 19.0	43 1.3	42 44.5	....
7	E.	S.	7 51 37.6	51 50.9	52 3.9	52 16.9	52 30.7	52 42.4	52 55.5	53 9.2	53 22.4	53 28.0	....	....	....
		N.	7 56 39.6	56 25.2	56 12.7	55 59.4	55 45.3	55 33.0	55 19.0	55 5.7	54 52.4	54 46.5	....	....	....
	W.	N.	10 25 30.0	25 44.6	25 57.4	26 11.5	26 25.9	26 38.5	26 51.8	27 5.4	27 17.8	27 24.7	....	....	....
		S.	10 30 32.6	30 19.0	30 5.8	29 54.3	29 39.0	29 27.0	29 13.6	29 1.0	28 48.3	28 42.0	....	....	....
7	E.	N.	8	....	....	40 9.0	40 38.9	41 10.6	41 41.4	42 14.5	42 50.1	43 4.7	....	....	....
		S.	8	....	....	50 38.5	49 54.5	49 11.1	48 32.5	47 51.0	47 10.7	46 51.0	....	....	....
	W.	S.	9	....	....	35 40.0	36 25.7	37 12.8	37 49.3	38 31.6	39 10.7	39 30.0	....	....	....
		N.	9	....	....	46 14.1	45 42.3	45 9.9	44 39.7	44 7.7	43 33.1	43 16.4	....	....	....
8	E.	N.	15 42 23.8	42 45.8	43 9.6	43 21.7	43 33.0	43 44.5	43 56.0	44 8.8	44 19.7	44 30.7	....	....	....
		S.	15 48 36.0	48 12.0	47 46.0	47 33.0	47 22.0	47 10.6	46 58.6	46 45.3	46 34.2	46 23.1	....	....	....
	W.	S.	18 32 18.6	32 42.6	33 7.0	33 19.9	33 31.0	33 44.0	33 56.9	34 9.0	34 19.6	34 32.7	....	....	....
		N.	18 38 31.1	38 7.5	37 44.7	37 32.5	37 20.7	37 9.0	36 57.6	36 46.3	36 34.9	36 22.9	....	....	....
8	E.	S.	17	....	....	....	59 34.0	0 5.4	0 36.8	1 13.4	1 44.4	1 57.4	2 15.8	2 33.9	2 51.7
		N.	18	....	....	....	8 18.0	7 37.9	6 58.7	6 22.5	5 40.0	5 22.6	5 3.5	4 42.8	4 25.0
	W.	N.	18	....	....	....	56 31.5	57 11.8	57 50.5	58 28.3	59 5.0	59 23.9	59 42.9	0 2.0	0 21.8
		S.	19	....	....	....	5 16.1	4 47.4	4 10.9	3 41.2	3 9.0	2 52.4	2 34.9	2 19.3	2 2.0
10	E.	N.	8	....	....	40 5.6	40 36.0	41 7.0	41 38.8	42 10.7	42 45.5	43 0.5	43 17.4	43 34.4	43 54.4
		S.	8	....	....	50 32.9	49 47.1	49 6.4	48 25.8	47 45.4	47 4.4	46 46.1	46 28.8	16 8.7	45 48.3
	W.	S.	9	....	....	35 35.9	36 20.3	37 4.7	37 44.4	38 24.9	39 6.2	39 25.3	39 43.0	40 3.0	40 23.9
		N.	9	....	....	46 9.2	45 38.5	45 6.4	44 35.0	44 2.9	43 28.4	43 12.4	42 56.6	42 38.0	42 20.4
10	E.	S.	9 1 18.6	1 32.3	1 44.7	1 58.2	2 11.4	2 23.6	2 36.7	2 50.5	3 3.6	3 9.6	....	....	....
		N.	9 6 21.8	6 7.9	5 54.1	5 40.1	5 25.9	5 13.4	4 59.6	4 46.4	4 32.9	4 26.3	....	....	....
	W.	N.	11 34 45.7	35 0.3	35 13.6	35 27.6	35 42.2	35 54.5	36 8.8	36 22.0	36 35.2	36 41.7	....	....	....
		S.	11 39 49.4	39 35 8	39 23.6	39 9.6	38 56.4	38 44.3	38 30.8	38 17.2	38 4.5	37 58.3	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION, 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ ″	"	° ′ ″		
θ Aurigæ......	189.2	180.3	−0.356	−0.492	+37 12 10.09	+ 0.91	+37 12 11.00	I.	
	181.6	184.8							
	193.3	197.5	−0.650						
	204.3	189.7							
Groomb. 1450	206.4	190.0	−0.825	−0.737	38 24 51.73	+ 6.83	38 24 58.56	I.	
	198.6	201.8							
	206.8	208.4	−0.675						
	214.7	202.3							
Lalande 18362	210.8	198.1	−0.694	−0.636	38 40 48.62	+ 8.89	38 40 57.51	I.	
	206.4	208.0							
	208.8	210.8	−0.600						
	217.2	205.6							
10 Leonis Min..	198.6	201.8	−0.625	−0.703	36 54 47.66	+ 9.92	36 54 57.58	I.	
	208.6	195.4							
	221.1	208.9	−0.831						
	216.3	215.2							
38 Leonis Min..	217.2	205.6	−0.781	−0.828	38 30 57.58	+12.07	38 31 9.65	I.	
	212.9	212.0							
	217.3	214.3	−0.913						
	222.6	211.0							
α Lyræ........	195.2	167.7	−1.719	−1.897	38 40 20.73	+10.53	38 40 31.26	B.	Not very good seeing; unsteady; ill defined.
	191.9	191.9							
	207.5	200.0	−2.119						Good seeing.
	219.4	193.0							
Groomb. 1450	160.1	169.1	+0.075	+0.212	38 24 53.13	+ 6.05	38 24 59.18	I.	
	172.8	165.0							
	181.5	177.7	+0.350						
	176.0	185.4							
Lalande 18362	180.3	172.5	+0.044	+0.156	38 40 49.93	+ 7.74	38 40 57.67	I.	
	174.9	183.4							
	178.8	186.9	+0.269						
	186.3	182.5							
α Lyræ	206.1	207.3	−0.138	−0.185	38 40 20.80	+10.31	38 40 31.11	B.	Fair seeing; image diffuse.
	208.8	205.4							
	209.9	205.2	−0.238						Light clouds; good image.
	207.5	208.4							
Lalande 18362	152.0	164.8	+0.538	+0.460	38 40 50.55	+ 7.58	38 40 58.13	B.	Fair seeing; hazy.
	164.2	160.0							
	168.4	164.7	+0.375						Light clouds passing.
	162.8	173.5							
38 Lyncis	136.4	132.0	+0.413	+0.249	37 17 41.23	+ 7.56	37 17 48.79	I.	
	132.9	143.9							
	162.9	167.5	+0.081						
	169.5	166.2							
Lalande 18362	144.5	149.8	+0.331	+0.656	38 40 50.57	+ 7.19	38 40 57.76	I.	
	152.0	152.0							
	156.0	157.6	+0.969						Clouds.
	156.0	169.9							
π Herculis.....	191.2	201.2	−0.106	+0.090	36 56 16.74	+11.60	36 56 28.34	B.	Good seeing. Transits over threads A to VIII.
	204.0	192.3							
	213.6	208.6	+0.294						Good seeing.
	206.7	216.4							
α Lyræ........	212.4	207.1	+0.256	+0.386	38 40 22.07	+ 9.87	38 40 31.94	B.	Very poor image; much diffuse.
	206.4	215.8							
	207.0	216.8	+0.531						Fair seeing.
	212.9	211.6							
Lalande 18362	166.4	163.6	+0.700	+0.862	38 40 50.93	+ 6.95	38 40 57.88	I.	Excellent seeing; well defined.
	159.8	173.8							
	162.8	180.0	+1.019						Very good seeing.
	174.2	173.3							
31 Leonis Min..	160.3	174.1	+0.788	+0.699	+37 18 12.56	+ 9.30	+37 18 21.86	I.	Good seeing.
	169.6	168.4							
	180.4	180.0	+0.625						Good seeing.
	176.2	186.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Apr. 10	E.	N.	9	....	....	50 36.6	51 1.3	51 26.5	51 50.6	52 16.6	52 42.0	52 55.1	53 7.1	53 21.4	53 36.0
		S.	9	....	....	58 25.3	57 55.4	57 26.2	56 58.6	56 29.7	55 59.4	55 46.1	55 32.8	55 18.1	55 3.4
	W.	S.	11	....	....	5 21.1	5 50.7	6 21.6	6 48.8	7 17.5	7 47.8	8 0.8	8 13.8	8 29.0	8 44.0
		N.	11	....	....	13 8.9	12 44.9	12 20.0	11 55.4	11 28.8	11 4.0	10 50.9	10 39.0	10 24.5	10 10.4
11	E.	N.	9	....	....	....	50 58.0	51 25.1	....	52 14.0	52 40.9	52 54.3	53 7.0	53 20.5	....
		S.	9	....	....	....	57 54.0	57 25.7	....	56 27.0	55 59.8	55 45.7	55 33.7	55 17.3	....
	W.	S.	11	....	....	....	5 48.6	6 17.6	....	7 14.2	7 43.7	7 58.6	8 12.1	8 27.0	....
		N.	11	....	....	....	12 42.0	12 16.8	....	11 26.0	11 0.0	10 48.0	10 35.5	10 21.9	....
13	E.	S.	8	....	....	....	40 36.0	41 7.5	41 40.5	42 13.5	42 47.6	43 3.7	43 19.6	43 37.0	43 53.6
		N.	8	....	....	....	49 33.0	48 51.5	48 9.5	47 30.3	46 50.7	46 32.0	46 11.9	45 53.8	45 35.0
	W.	N.	9	....	....	....	36 29.0	37 10.0	37 50.5	38 31.8	39 11.6	39 30.4	39 49.9	40 7.9	40 26.5
		S.	9	....	....	....	45 25.0	44 53.8	44 20.9	43 47.9	43 15.8	42 59.9	42 43.9	42 26.9	42 10.5
14	E.	S.	8	....	....	40 38.2	41 10.3	41 40.6	42 12.9	42 46.6	43 19.3	43 35.3	43 52.4	44 9.4	44 26.4
		N.	8	....	....	50 54.2	50 6.4	49 26.8	48 43.0	48 2.8	47 23.3	47 4.4	46 45.7	46 27.0	46 9.5
	W.	N.	9	....	....	36 13.4	37 1.5	37 40.9	38 23.8	39 5.3	39 45.0	40 2.7	40 21.3	40 40.0	40 57.9
		S.	9	....	....	46 30.9	45 56.9	45 28.0	44 53.5	44 21.1	43 48.0	43 31.7	43 15.2	42 55.5	42 41.0
14	E.	N.	7 59 10.5	59 22.6	59 33.8	59 45.2	59 57.0	0 8.5	0 19.6	0 31.0	0 43.5	....	....	....	....
		S.	8 3 47.2	3 33.9	3 21.4	3 10.3	2 58.0	2 46.0	2 34.3	2 22.9	2 10.0	....	....	....	....
	W.	S.	10 50 10.3	50 23.0	50 34.0	50 47.1	50 59.0	51 11.0	51 23.2	51 34.9	51 46.9	....	....	....	....
		N.	10 54 45.6	54 34.0	54 22.0	54 10.3	53 59.4	53 47.7	53 36.2	53 24.4	53 12.4	....	....	....	....
14	E.	S.	9	....	....	51 10.0	51 36.3	52 0.3	52 25.6	52 52.3	53 17.5	53 29.9	53 41.9	53 55.0	54 9.3
		N.	9	....	....	58 47.7	58 15.4	57 46.1	57 17.1	56 48.7	56 18.9	56 6.9	55 51.9	55 38.5	55 25.0
	W.	N.	11	....	....	5 54.4	6 25.1	6 52.2	7 23.9	7 53.4	8 21.0	8 35.0	8 48.0	9 1.9	9 15.7
		S.	11	....	....	13 33.5	13 6.2	12 43.0	12 17.5	11 50.5	11 26.4	11 12.6	11 1.4	10 47.2	10 34.0
17	E.	N.	8	....	....	40 26.9	40 57.7	41 29.0	42 0.0	42 32.3	43 7.9	43 23.5	43 39.8	43 57.7	44. 16.6
		S.	8	....	....	50 56.6	50 13.8	49 31.0	48 51.0	48 10.8	47 30.4	47 12.8	46 54.0	46 31.9	46 12.1
	W.	S.	9	....	....	36 0.1	36 45.2	37 27.1	38 8.8	38 50.5	39 30.2	39 48.1	40 6.4	40 28.5	40 48.0
		N.	9	....	....	46 31.3	46 1.7	45 30.1	44 58.8	44 25.7	43 52.5	43 37.6	43 20.2	43 2.1	42 42.8
17	E.	S.	7 59 9.0	59 21.0	59 32.6	59 44.5	59 56.5	0 7.9	0 19.6	0 31.5	0 43.4	....	....	....	....
		N.	8 3 39.9	3 27.7	3 15.3	3 3.0	2 50.4	2 38.8	2 26.6	2 14.6	2 2.6	....	....	....	....
	W.	N.	10 50 8.6	50 21.2	50 33.1	50 45.1	50 58.0	51 9.6	51 21.4	51 34.0	51 45.4	....	....	....	....
		S.	10 54 40.0	54 28.0	54 16.2	54 3.8	53 52.0	53 40.9	53 29.1	53 17.4	53 5.0	....	....	....	....
17	E.	S.	9 1 43.0	1 56.5	2 9.4	2 22.0	2 36.2	2 48.2	3 1.7	3 15.3	3. 27.9	....	....	....	....
		N.	9 6 46.8	6 31.4	6 18.6	6 5.0	5 50.8	5 37.9	5 23.8	5 10.0	4 57.0	....	....	....	....
	W.	N.	11 35 10.0	35 23.7	35 37.7	35 51.4	36 5.9	36 18.0	36 32.4	36 45.4	36 59.1	....	....	....	....
		S.	11 40 13.0	39 59.4	39 47.0	39 33.2	39 19.6	39 7.3	38 53.8	38 40.9	38 27.3	....	....	....	....
17	E.	N.	9	....	....	51 2.0	51 25.0	51 52.0	52 15.8	52 41.0	53 7.7	53 19.7	53 32.4	53 47.0	53 59.6
		S.	9	....	....	58 50.5	58 20.6	57 50.5	57 22.5	56 53.0	56 23.0	56 11.0	55 57.4	55 42.7	55 27.1
	W.	S.	11	....	....	5 43.7	6 12.5	6 43.1	7 12.0	7 40.2	8 10.0	8 23.7	8 37.4	8 51.8	9 7.5
		N.	11	....	....	13 32.4	13 8.0	12 41.7	12 18.8	11 53.5	11 26.5	11 14.0	11 2.4	10 47.7	10 34.3
17	E.	N.	16 31 53.0	32 6.4	32 18.8	32 32.0	32 44.0	32 56.7	33 9.6	33 22.7	....	....	....	....	....
		S.	16 36 55.0	36 41.3	36 28.0	36 14.6	36 1,1	35 47.0	35 36.1	35 23.0	....	....	....	....	....
	W.	S.	19 7 13.7	7 28.0	7 40.9	7 54.0	8 6.8	8 20.5	8 33.0	8 45.9	....	....	....	....	....
		N.	19 12 17.6	12 3.6	11 51.1	11 38.4	11 26.0	11 13.0	11 0.8	10 47.7	....	....	....	....	....
17	E.	S.	18	....	....	....	....	....	0 59.9	1 32.0	2 5.3	2 21.4	2 38.0	2 55.1	3 13.8
		N.	18	....	....	....	....	....	7 21.0	6 41.9	6 4.8	5 45.9	5 27.2	5 5.8	4 51.1
	W.	N.	18	....	....	....	....	....	58 12.0	58 51.6	59 32.1	59 50.1	0 7.6	0 26.6	0 45.9
		S.	19	....	....	....	....	....	4 32.1	4 2.0	3 29.3	3 14.8	2 58.4	2 40.8	2 23.9
18	E.	N.	8	....	....	40 27.4	40 58.1	41 29.5	42 1.2	42 33.3	43 6.6	....	43 38.4	43 56.7	44 14.9
		S.	8	....	....	51 0.0	50 16.8	49 34.9	48 52.8	48 11.3	47 32.4	....	46 54.4	46 34.5	46 15.4
	W.	S.	9	....	....	35 57.0	36 40.3	37 23.0	38 3.6	38 44.7	39 25.1	....	40 3.5	40 22.8	40 42.0
		N.	9	....	....	46 30.9	45 58.9	45 28.9	44 56.6	44 23.0	43 49.9	....	43 17.8	42 59.0	42 41.0
18	E.	S.	9 1 42.9	1 56.0	2 10.1	2 23.2	2 36.7	2 48.6	3 2.4	3 15.5	3 27.9	....	....	....	....
		N.	9 6 44.8	6 31.0	6 17.0	6 3.3	5 48.6	5 36.5	5 22.9	5 8.8	4 55.1	....	....	....	....
	W.	N.	11 35 8.9	35 22.6	35 36.3	35 50.5	36 4.3	36 17.4	36 31.0	36 44.3	36 57.8	....	....	....	....
		S.	11 40 11.0	39 58.5	39 44.8	39 31.5	39 18.5	39 6.0	38 52.3	38 39.0	38 26.4	....	....	....	....
18	E.	N.	9	....	....	....	51 24.6	51 49.5	52 14.6	....	53 5.4	53 17.5	53 30.8	53 43.8	53 57.8
		S.	9	....	....	....	58 20.7	57 52.0	57 23.0	....	56 25.5	56 12.0	55 57.0	55 41.8	55 27.0
	W.	S.	11	....	....	....	6 10.3	6 39.4	7 8.6	....	8 6.8	8 20.7	8 34.0	8 48.7	9 3.0
		N.	11	....	....	....	13 6.0	12 40.8	12 17.4	....	11 26.0	11 14.0	11 1.0	10 48.0	10 33.0
18	E.	N.	16 31 52.0	32 4.9	32 18.0	32 30.4	32 43.0	32 55.5	33 8.2	....	33 33.7	....	....	....	....
		S.	16 36 55.4	36 41.2	36 28.2	36 14.7	36 2.0	35 48.5	35 35.1	....	35 9.4	....	....	....	....
	W.	S.	19 7 12.0	7 26.6	7 39.0	7 52.0	8 5.4	8 19.0	8 32.0	....	8 58.5	....	....	....	....
		N.	19 12 16.1	12 2.6	11 49.8	11 37.6	11 24.8	11 12.0	10 59.4	....	10 33.8	....	....	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	″	° ′ ″	″	° ′ ″		
38 Leonis Min..	175.0	172.6	+0.638	+0.699	+38 31 0.49	+9.28	+38 31 9.77	I.	Good seeing.
	168.4	181.0							
	172.2	184.8	+0.763						Good seeing.
	180.0	180.0							
38 Leonis Min..	153.1	146.1	+0.838	+0.949	38 31 1.83	+9.16	38 31 10.99	B.	Fair seeing; light clouds.
	140.0	160.4							
	143.4	163.6	+1.038						Fair seeing; light clouds.
	156.0	152.4							
Lalande 18362	147.2	167.5	+1.013	+0.920	38 40 50.24	+6.75	38 40 56.99	B.	Good seeing.
	161.8	157.7							
	165.5	160.8	+0.813						Good seeing; light clouds.
	155.6	173.3							
Lalande 18362	155.5	176.4	+1.050	+1.039	38 40 50.86	+6.66	38 40 57.52	I.	Good seeing.
	173.4	169.3							
	178.0	174.8	+1.025						Good seeing.
	168.6	188.2							
10 Leonis Min..	160.3	156.8	+1.156	+1.039	36 54 50.88	+7.58	36 54 58.46	I.	Clear; well defined.
	149.8	171.8							
	174.9	190.7	+0.950						Clear; well defined.
	184.6	184.0							
38 Leonis Min..	170.0	187.2	+0.975	+0.983	38 31 0.73	+8.78	38 31 9.51	I.	Good seeing.
	180.0	178.4							
	184.7	184.1	+1.006						Good seeing.
	178.3	195.0							
Lalande 18362	171.7	166.0	+1.006	+1.032	38 40 50.94	+6.29	38 40 57.23	I.	Very good seeing.
	160.7	182.5							
	163.7	185.5	+1.056						Good seeing; light haze.
	178.8	173.9							
10 Leonis Min..	153.2	176.4	+1.150	+1.005	36 54 51.13	+7.21	36 54 58.34	I.	Steady; very well defined; light haze.
	168.0	163.2							
	182.2	178.2	+0.888						Clear; good seeing.
	172.9	191.1							
31 Leonis Min.	161.5	182.1	+0.963	+0.919	37 18 13.93	+8.36	37 18 22.29	I.	Good seeing.
	175.6	170.4							
	185.8	183.4	+0.900						Good seeing.
	178.7	195.5							
38 Leonis Min..	178.8	174.0	+0.838	+0.987	38 31 1.76	+8.27	38 31 10.03	I.	Good seeing.
	167.8	186.0							
	172.2	192.2	+1.144						Good seeing.
	184.8	183.1							
θ Herculis	206.9	205.2	+0.819	+0.848	37 15 49.01	+9.44	37 15 58.45	B.	Fair seeing in zenith; light fog near horizon.
	199.6	214.4							
	204.4	219.1	+0.931						Good seeing.
	211.8	212.0							
α Lyræ........	202.9	215.5	+0.613	+0.748	38 40 22.60	+8.85	38 40 31.45	B.	3-inch aperture; image diffuse.
	211.2	208.4							
	211.8	210.6	+0.913						Full aperture; better seeing.
	203.9	219.7							
Lalande 18362	163.1	137.2	—0.638	—0.267	38 40 51.53	+6.16	38 40 57.69	B.	Good seeing.
	146.7	162.4							
	152.2	168.9	+0.106						Good seeing.
	171.5	156.5							
31 Leonis Min..	147.6	162.3	—0.169	+0.051	37 18 14.06	+8.18	37 18 22.24	B.	Good seeing.
	165.4	148.0							
	180.5	173.5	+0.275						Good seeing; very bright moonlight.
	172.6	184.0							
38 Leonis Min..	171.5	157.6	—0.013	+0.134	38 31 1.67	+8.08	38 31 9.75	B.	Good seeing.
	159.5	173.2							
	167.9	180.4	+0.281						Good seeing; very bright moonlight.
	180.0	172.0							
θ Herculis	198.1	187.9	+0.431	+0.454	+37 15 49.53	+9.29	+37 15 58.82	I.	Somewhat diffuse.
	185.4	202.5							
	193.2	208.0	+0.500						Steady; well defined.
	203 3	196.5							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Apr. 18	E.	S.	18	....	....	....	....	....	1 0.2	1 34.0	2 4.0	2 20.6	2 39.8	2 57.0	3 13.0
		N.	18	....	....	....	....	....	7 20.0	6 42.6	6 4.1	5 46.0	5 27.0	5 7.9	4 51.2
	W.	N.	18	....	....	....	....	....	58 12.6	58 53.0	59 31.4	59 50.0	0 7.4	0 26.7	0 44.0
		S.	19	....	....	....	....	....	4 33.4	4 0.0	3 28.4	3 12.1	2 55.4	2 38.1	2 21.7
20	E.	N.	9	....	....	....	....	2 43.0	2 55.4	3 8.5	3 21.5	3 28.1	....	....	....
		S.	9	....	....	....	....	5 37.6	5 23.5	5 10.4	4 57.0	4 51.0	....	....	....
	W.	S.	11	....	....	....	....	36 11.0	36 25.1	36 38.5	36 51.0	36 57.4	....	....	....
		N.	11	....	....	....	....	39 7.0	38 53.2	38 40.7	28 27.8	38 21.0	....	....	....
20	E.	S.	9	....	....	....	51 29.0	51 52.7	52 19.0	52 45.5	53 10.0	53 22.5	53 35.3	53 48.2	54 1.7
		N.	9	....	....	....	58 9.8	57 39.5	57 11.1	56 42.0	56 14.0	56 0.5	55 47.0	55 33.1	55 19.0
	W.	N.	11	....	....	....	6 16.0	6 45.7	7 13.8	7 43.0	8 11.0	8 25.0	8 38.5	8 52.5	9 7.0
		S.	11	....	....	....	12 58.0	12 33.8	12 7.9	11 41.5	11 16.1	11 4.0	10 51.8	10 39.0	10 24.8
20	E.	S.	16 31 51.6	32 4.6	32 18.0	32 31.0	32 44.5	32 56.2	33 9.2	33 23.1	....	....	....	....	....
		N.	16 36 52.3	36 38.0	36 24.3	36 10.6	35 56.4	35 44.4	35 30.0	35 16.8	....	....	....	....	....
	W.	N.	19 7 11.4	7 26.0	7 39.4	7 51.9	8 5.9	8 18.1	8 33.4	8 46.0	....	....	....	....	....
		S.	19 12 11.6	11 57.0	11 45.4	11 31.7	11 18.0	11 7.0	10 53.7	10 40.7	....	....	....	....	....
20	E.	N.	18	....	....	....	....	....	....	....	1 54.0	2 10.9	2 26.4	2 43.4	3 1.0
		S.	18	....	....	....	....	....	....	....	6 9.3	5 54.4	5 36.5	5 14.9	4 55.3
	W.	S.	18	....	....	....	....	....	....	....	59 18.0	59 35.5	59 53.6	0 13.2	0 33.6
		N.	19	....	....	....	....	....	....	....	3 34.6	3 19.0	3 2.8	2 44.9	2 26.6
21	E.	S.	9 1 39.0	1 52.5	2 5.6	2 18.5	2 32.7	2 43.6	2 57.8	3 10.6	3 24.4	....	....	....	....
		N.	9 6 41.7	6 27.8	6 13.8	5 59.6	5 45.5	5 33.8	5 19.4	5 6.0	4 51.7	....	....	....	....
	W.	N.	11 35 5.1	35 18.9	35 32.7	35 46.5	36 1.0	36 13.5	36 28.1	36 40.9	36 54.3	....	....	....	....
		S.	11 40 8.0	39 54.6	39 41.0	39 28.3	39 15.0	39 3.8	38 49.1	38 36.4	38 23.0	....	....	....	....
21	E.	S.	9	....	....	....	....	....	52 18.5	52 44.5	53 10.5	53 22.1	53 34.3	53 46.8	54 1.1
		N.	9	....	....	....	....	....	57 9.0	56 41.2	56 12.0	55 59.2	55 44.9	55 31.3	55 17.0
	W.	N.	11	....	....	....	....	....	7 14.7	7 44.7	8 11.2	8 25.4	8 40.5	8 52.8	9 7.8
		S.	11	....	....	....	....	....	12 6.2	11 40.4	11 14.8	11 2.3	10 48.8	10 36.0	10 22.4
24	E.	S.	9 1 35.0	1 48.1	2 1.6	2 15.0	2 28.6	2 40.8	2 53.7	3 7.3	3 20.5	....	....	....	....
		N.	9 6 38.4	6 23.9	6 9.9	5 56.2	5 42.3	5 29.8	5 15.7	5 2.2	4 49.0	....	....	....	....
	W.	N.	11 35 0.1	35 15.0	35 28.7	35 42.1	35 56.8	36 9.1	36 23.5	36 36.9	36 50.5	....	....	....	....
		S.	11 40 4.7	39 51.4	39 38.5	39 25.3	39 11.2	38 59.7	38 46.1	38 33.2	38 19.4	....	....	....	....
24	E.	N.	9	....	....	....	51 18.7	51 43.1	52 7.0	52 34.4	53 0.4	53 12.5	53 25.4	53 39.4	53 53.3
		S.	9	....	....	....	58 11.8	57 42.4	57 13.9	56 46.3	56 17.5	56 2.2	55 48.3	55 35.8	55 20.4
	W.	S.	11	....	....	....	6 4.9	6 35.2	7 2.5	7 31.7	8 1.7	8 14.3	8 27.9	8 43.6	8 56.7
		N.	11	....	....	....	12 58.8	12 34.4	12 9.2	11 43.0	11 17.8	11 4.8	10 51.2	10 37.9	10 24.2
24	E.	N.	16 31 45.9	31 58.5	32 10.2	32 22.9	32 36.3	32 49.2	33 2.5	33 15.3	33 28.7	....	....	....	....
		S.	16 36 49.0	36 34.5	36 21.0	36 7.7	35 54.7	35 41.0	35 28.4	35 15.0	35 1.5	....	....	....	....
	W.	S.	19 7 5.0	7 17.9	7 31.9	7 44.2	7 57.0	8 11.5	8 23.1	8 37.6	8 50.7	....	....	....	....
		N.	19 12 8.5	11 54.5	11 41.6	11 29.4	11 16.6	11 4.1	10 52.0	10 39.6	10 25.9	....	....	....	....
24	E.	S.	18	....	....	....	....	....	0 51.5	....	1 57.1	2 13.0	2 29.7	2 47.0	3 5.0
		N.	18	....	....	....	....	....	7 18.6	....	5 59.7	5 40.9	5 22.0	5 2.8	4 44.2
	W.	N.	18	....	....	....	....	....	58 1.9	....	59 21.7	59 40.1	59 58.8	0 16.8	0 34.7
		S.	19	....	....	....	....	....	4 28.0	....	3 21.9	3 5.8	2 48.9	2 32.1	2 16.0
25	E.	S.	9 1 33.7	1 46.7	1 59.9	2 13.0	2 26.7	2 39.0	2 52.0	3 5.1	....	....	....	....	....
		N.	9 6 37.0	6 21.8	6 8.0	5 54.9	5 39.9	5 26.6	5 13.4	5 0.6	....	....	....	....	....
	W.	N.	11 35 0.1	35 14.8	35 28.0	35 41.1	35 56.0	36 9.2	36 21.9	36 35.8	....	....	....	....	....
		S.	11 40 3.6	39 50.0	39 36.4	39 23.6	39 9.9	38 57.4	38 44.0	38 31.0	....	....	....	....	....
25	E.	N.	9	....	....	....	51 15.5	51 39.9	52 4.7	52 31.0	52 57.8	53 10.0	53 23.9	53 35.6	53 49.0
		S.	9	....	....	....	58 9.8	57 40.3	57 11.6	56 41.9	56 13.4	56 1.0	55 46.8	55 30.7	55 17.8
	W.	S.	11	....	....	....	6 2.6	6 32.1	6 59.8	7 28.4	7 58.6	8 13.7	8 26.7	8 39.1	8 54.0
		N.	11	....	....	....	12 57.0	12 33.1	12 7.3	11 42.1	11 17.4	11 3.7	10 51.0	10 36.9	10 22.8
26	E.	S.	16	31 57.5	32 10.1	32 22.9	32 36.0	32 47.9	33 1.9	33 14.5	33 27.9	....	....	....	....
		N.	16	36 30.8	36 17.8	36 3.9	35 50.1	35 37.5	35 23.0	35 11.1	34 57.6	....	....	....	....
	W.	N.	19	7 18.7	7 30.9	7 45.0	7 58.7	8 11.7	8 25.0	8 38.3	8 52.0	....	....	....	....
		S.	19	11 50.8	11 37.8	11 24.9	11 11.0	10 59.0	10 45.8	10 32.0	10 19.6	....	....	....	....
26	E.	N.	18	....	....	....	....	....	0 44.8	1 14.8	1 48.4	2 2.9	2 20.9	2 37.0	2 55.0
		S.	18	....	....	....	....	....	7 25.7	6 43.5	6 4.3	5 45.9	5 27.4	5 8.3	4 48.5
	W.	S.	18	....	....	....	....	....	57 49.5	58 28.8	59 9.0	59 27.9	59 45.7	0 5.2	0 24.4
		N.	19	....	....	....	....	....	4 32.5	4 0.1	3 26.9	3 9.6	2 53.6	2 36.8	2 18.7
27	E.	S.	16	31 56.0	32 9.0	32 21.0	32 35.4	32 47.2	33 0.6	33 14.2	33 26.4	33 33.0	....	....	....
		N.	16	36 28.8	36 15.3	36 2.0	35 47.4	35 34.4	35 21.9	35 8.7	34 55.0	34 48.0	....	....	....
	W.	N.	19	7 13.8	7 27.7	7 41.5	7 55.1	8 7.3	8 21.0	8 35.4	8 48.1	8 54.0	....	....	....
		S.	19	11 46.0	11 33.4	11 19.8	11 6.7	10 55.0	10 41.5	10 28.4	10 15.9	10 9.3	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
α Lyræ........	195.9	208.1	+0.213	+0.339	+38 40 22.88	+8.72	+38 40 31.60	I.	3-inch aperture; diffuse.
	205.4	196.6							
	203.8	195.8	+0.475						Tolerably well defined.
	192.6	208.2							
31 Leonis Min ..	191.4	184.0	+0.350	+0.382	37 18 14.39	+7.84	37 18 22.23	B.	Fair image; bright moonlight.
	180.4	193.4							
	193.8	206.3	+0.431						
	203.6	198.0							
38 Leonis Min ..	184.4	196.8	+0.281	+0.413	38 31 1.78	+7.72	38 31 9.50	B.	Fair image; bright moonlight.
	195.8	187.9							
	200.4	195.7	+0.556						
	192.2	205.8							
θ Herculis.....	204.0	216.0	+0.300	+0.169	37 15 50.46	+8.92	37 15 59.38	I.	Well defined.
	216.0	208.8							
	228.0	222.8	+0.050						Faint; light fog.
	221.6	227.6							
α Lyræ........	222.4	215.6	+0.256	+0.180	38 40 22.58	+8.42	38 40 31.00	I.	Bad image.
	215.0	225.9							
	220.1	229.1	+0.113						Bad image.
	228.8	221.6							
31 Leonis Min ..	169.1	190.8	+0.863	+0.885	37 18 14.42	+7.69	37 18 22.11	I.	Good image.
	187.9	180.0							
	201.2	199.5	+0.944						Good image.
	193.2	210.0							
38 Leonis Min ..	179.6	200.0	+0.850	+0.849	38 31 1.95	+7.55	38 31 9.50	I.	Good seeing.
	195.8	189.0							
	200.0	196.5	+0.869						Good seeing.
	191.1	208.5							
31 Leonis Min ..	206.8	226.5	+1.281	+1.103	37 18 14.76	+7.35	37 18 22.11	I.	Fair seeing.
	218.5	219.3							
	241.6	244.0	+1.019						Good seeing.
	236.4	250.3							
38 Leonis Min ..	229.5	226.9	+1.106	+1.053	38 31 2.87	+7.17	38 31 10.04	I.	Good seeing.
	222.7	243.0							
	233.3	248.2	+1.075						Good seeing.
	241.3	243.6							
θ Herculis.....	256.8	256.0	+1.081	+1.149	37 15 51.63	+8.01	37 15 59.64	B.	Good seeing.
	247.5	265.6							
	248.0	270.2	+1.356						Fair image; light fleecy clouds.
	259.7	259.2							
α Lyræ........	246.9	268.0	+1.125	+1.119	38 40 23.96	+7.60	38 40 31.56	B.	Bad image; much diffuse.
	259.3	256.2							
	260.6	257.0	+1.219						Fair image.
	247.6	270.7							
31 Leonis Min ..	111.4	139.3	+2.206	+2.094	37 18 14.88	+7.26	37 18 22.14	B.	Good seeing.
	123.8	131.2							
	137.9	146.0	+1.938						Good seeing.
	132.0	154.9							
38 Leonis Min ..	128.0	133.4	+1.888	+2.034	38 31 3.15	+7.07	38 31 10.22	B.	Good seeing.
	120.0	144.8							
	127.2	152.0	+2.100						Good seeing.
	136.0	144.8							
θ Herculis.....	121.0	140.0	+1.181	+1.164	37 15 51.75	+7.59	37 15 59.34	B.	Good seeing.
	132.1	132.0							
	138.8	140.0	+1.125						Good seeing.
	131.2	148.0							
α Lyræ........	136.0	136.1	+1.169	+1.244	38 40 24.57	+7.22	38 40 31.79	B.	1½-inch aperture.
	128.1	146.7							
	129.4	148.3	+1.269						Full aperture; fair image.
	138.6	140.0							
θ Herculis.....	136.3	130.1	−1.000	−1.092	+37 15 52.48	+7.40	+37 15 59.88	I.	Good seeing.
	141.1	131.3							
	152.5	138.7	−1.169						Good seeing.
	148.3	143.4							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Apr. 27	E.	N.	18	....	....	....	....	....	....	1 15.0	1 48.4	2 4.6	2 19.9	2 36.6	2 55.9
		S.	18	....	....	....	....	....	....	6 45.0	6 6.5	5 46.6	5 28.8	5 9.0	4 49.9
	W.	S.	18	....	....	....	....	....	....	58 24.0	59 3.7	59 21.1	59 39.0	59 58.6	0 19.3
		N.	19	....	....	....	....	....	....	3 53.0	3 20.6	3 3.4	2 49.7	2 30.1	2 12.8
27	E.	S.	17	....	....	....	....	....	....	....	45 55.5	46 5.3	46 14.8	46 25.9	46 36.8
		N.	17	....	....	....	....	....	....	....	48 17.8	48 6.8	47 55.9	47 47.3	47 35.9
	W.	N.	19	....	....	....	....	....	....	....	23 26.0	23 33.9	23 45.4	23 57.0	24 6.9
		S.	19	....	....	....	....	....	....	....	25 46.3	25 36.5	25 25.6	25 16.6	25 6.4
30	E.	N.	9 1 25.3	1 37.4	1 50.6	2 3.0	2 16.0	2 29.3	2 41.1	2 54.4	....	....	....	....	....
		S.	9 6 32.7	6 18.1	6 4.9	5 51.2	5 37.7	5 24.0	5 10.5	4 57.5	....	....	....	....	....
	W.	S.	11 34 48.9	35 2.6	35 16.2	35 29.7	35 42.9	35 56.9	36 8.9	36 22.2	....	....	....	....	....
		N.	11 39 55.6	39 41.8	39 28.7	39 16.0	39 3.4	38 50.8	38 38.1	38 24.8	....	....	....	....	....
30	E.	S.	9	....	....	....	51 16.3	51 42.0	52 8.0	52 33.8	52 59.0	53 11.7	53 23.9	53 37.4	....
		N.	9	....	....	....	57 58.0	57 28.7	56 57.1	56 28.3	56 0.8	55 47.8	55 33.9	55 21.1	....
	W.	N.	11	....	....	....	6 0.1	6 26.9	6 58.2	7 27.0	7 54.3	8 8.7	8 21.6	8 35.9	....
		S.	11	....	....	....	12 40.7	12 19.0	11 51.8	11 23.5	10 58.5	10 45.8	10 32.1	10 19.5	....
30	E.	S.	16 31 39.4	31 52.5	32 5.0	32 18.5	32 32.1	32 43.9	32 56.0	33 8.9	33 22.5	....	....	....	....
		N.	16 36 40.1	36 25.6	36 12.2	35 58.4	35 44.7	35 33.2	35 18.4	35 5.0	34 51.3	....	....	....	....
	W.	N.	19 6 56.5	7 11.4	7 23.6	7 38.1	7 51.0	8 3.6	8 17.3	8 30.8	8 44.1	....	....	....	....
		S.	19 11 56.9	11 42.0	11 30.3	11 16.3	11 3.0	10 51.0	10 38.4	10 24.4	10 12.6	....	....	....	....
30	E.	N.	18	....	....	....	....	....	0 40.1	1 11.6	1 44.4	2 1.2	2 17.1	2 35.9	2 53.7
		S.	18	....	....	....	....	....	7 22.5	6 39.4	6 0.9	5 41.4	5 23.4	5 6.8	4 43.6
	W.	S.	18	....	....	....	....	....	57 40.6	58 19.4	58 58.9	59 18.4	59 35.2	59 56.0	0 15.9
		N.	19	....	....	....	....	....	4 22.1	3 48.0	3 18.4	3 0.7	2 44.6	2 27.5	2 9.0
May 2	E.	N.	9	....	1 47.5	2 0.6	2 13.3	....	2 38.4	....	3 5.0	....	3 17.6	....	....
		S.	9	....	6 2.5	5 48.9	5 35.6	....	5 9.3	....	4 42.0	....	4 29.1	....	....
	W.	S.	11	....	35 12.8	35 26.3	35 39.4	....	36 6.0	....	36 32.7	....	36 45.1	....	....
		N.	11	....	39 26.6	39 12.9	39 0.8	....	38 35.6	....	38 8.5	....	37 56.0	....	....
2	E.	S.	9		....	....	....	....	52 5.7	52 31.3	52 57.3	53 9.5	53 22.7	....	....
		N.	9		....	....	....	....	56 54.0	56 25.5	55 57.1	55 43.9	55 29.8	....	....
	W.	N.	11		....	....	....	....	6 54.3	7 24.9	7 53.4	8 7.0	8 20.0	....	....
		S.	11		....	....	....	....	11 45.7	11 20.0	10 54.0	10 41.7	10 30.0	....	....
2	E.	N.	11 47 53.5	48 12.1	48 30.7	48 48.7	49 6.9	49 25.0	49 43.8	....	50 20.8	....	....	....	....
		S.	11 55 24.5	55 3.0	54 42.0	54 21.5	54 1.7	53 42.7	53 22.5	....	52 42.4	....	....	....	....
	W.	S.	13 32 49.0	33 10.2	33 31.6	33 52.7	34 12.6	34 33.0	34 51.9	....	35 32.7	....	....	....	....
		N.	13 40 20.8	40 2.9	39 45.1	39 25.8	39 8.4	38 49.7	38 31.5	....	37 54.0	....	....	....	....
2	E.	S.	12 4 10.0	4 27.5	4 44.9	5 2.6	5 21.0	5 37.3	5 55.3	6 13.8	6 30.9	....	....	....	....
		N.	12 11 4.0	10 43.8	10 24.4	10 4.0	9 45.8	9 27.9	9 8.5	8 49.8	8 32.0	....	....	....	....
	W.	N.	13 56 27.5	56 46.0	57 5.7	57 25.7	57 45.4	58 4.5	58 22.0	58 40.9	58 59.4	....	....	....	....
		S.	14 3 21.8	3 3.6	2 45.9	2 28.0	2 10.5	1 53.6	1 35.2	1 17.0	1 0.1	....	....	....	....
2	E.	N.	12	21 59.4	22 14.0	22 29.9	....	22 59.1	23 14.9	23 30.7	23 46.1	....	....	....	....
		S.	12	27 34.8	27 18.5	27 2.4	....	26 30.1	26 14.7	25 58.5	25 41.8	....	....	....	....
	W.	S.	14	30 35.6	30 51.9	31 7.9	....	31 39.7	31 56.4	32 11.6	32 28.0	....	....	....	....
		N.	14	36 10.4	35 54.9	35 39.7	....	35 10.0	34 54.8	34 39.0	34 23.6	....	....	....	....
2	E.	N.	18	....	....	....	....	....	0 34.8	1 7.5	1 42.4	1 58.4	2 13.5	2 28.8	2 49.0
		S.	18	....	....	....	....	....	7 20.4	6 43.3	6 0.0	5 47.0	5 26.0	5 5.5	4 45.4
	W.	S.	18	....	....	....	....	....	57 34.0	58 13.8	58 55.3	59 12.6	59 31.3	59 51.0	0 10.8
		N.	19	....	....	....	....	....	4 21.5	3 50.0	3 13.4	3 0.5	2 43.9	2 26.0	2 7.0
2	E.	S.	17	....		....	44 30.6	44 49.4	45 10.1	45 30.3	45 50.5	45 59.1	46 10.3	46 21.4	46 31.1
		N.	17	....		....	49 37.3	49 17.2	48 54.7	48 31.3	48 10.3	48 1.3	47 50.4	47 40.3	47 29.5
	W.	N.	19	....		....	21 52.6	22 13.0	22 34.7	22 57.4	23 19.3	23 29.4	23 39.0	23 51.0	24 0.7
		S.	19	....		....	26 57.4	26 39.4	26 18.0	25 57.3	25 37.4	25 27.2	25 17.8	25 7.5	24 57.3
2	E.	N.	17 25 12.1	25 26.7	25 40.0	25 53.4	26 6.4	26 20.3	26 34.1	26 47.4	27 2.1	....	....	....	....
		S.	17 30 38.6	30 22.5	30 9.3	29 54.6	29 40.7	29 26.2	29 11.1	28 57.7	28 44.8	....	....	....	....
	W.	S.	19 49 50.3	50 5.0	50 19.8	50 34.2	50 47.0	51 3.0	51 16.3	51 31.0	51 45.5	....	....	....	....
		N.	19 55 17.9	55 4.0	54 49.8	54 36.6	54 23.2	54 10.0	53 56.6	53 42.6	53 27.8	....	....	....	....
2	E.	S.	18	....	....	....	....	9 57.8	....	10 31.6	10 47.6	10 57.4	11 5.4	....	....
		N.	18	....	....	....	....	13 34.3	....	12 58.4	12 41.4	12 32.3	12 24.4	....	....
	W.	N.	20	....	....	....	....	10 2.9	....	10 38.0	10 55.5	11 2.9	11 11.8	....	....
		S.	20	....	....	....	....	13 38.7	....	13 4.6	12 48.5	12 39.4	12 32.3	....	....
3	E.	N.	9 1 20.9	1 33.0	1 46.0	1 58.9	2 11.6	2 24.0	....	....	....	....	....	....	....
		S.	9 6 29.7	6 15.7	6 1.6	5 48.8	5 35.2	5 21.8	....	....	....	....	....	....	....
	W.	S.	11 34 43.4	34 56.9	35 10.4	35 24.0	35 37.5	35 51.9	....	....	....	....	....	....	....
		N.	11 39 51.4	39 38.3	39 24.6	39 11.5	38 59.3	38 46.2	....	....	....	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
α Lyræ	149.4	135.4	−1.269	−1.269	+38 40 25.01	+7.04	+38 40 32.05	I.	1¼-inch aperture; well defined.
	146.0	139.7							
	148.0	142.0	−1.225						Full aperture; much diffused.
	152.4	138.8							
B. A. C. 6365.	148.0	136.0	−1.588	−1.378	38 15 24.19	+6.93	38 15 31.12	I.	Faint.
	148.9	135.5							
	152.8	139.6	−1.131						Very faint.
	149.2	144.3							
31 Leonis Min..	200.0	181.1	−1.038	−1.112	37 18 15.49	+6.72	37 18 22.21	B.	Steady; rather faint; clouds.
	191.2	193.5							
	215.2	216.8	−1.250						Fair seeing.
	228.0	206.4							
38 Leonis Min..	201.5	202.6	−1.269	−1.144	38 31 3.40	+6.49	38 31 9.89	B.	Fair seeing.
	214.6	193.2							
	223.0	202.4	−1.063						Fair seeing.
	212.4	216.0							
θ Herculis.....	99.6	101.3	−1.344	−1.351	37 15 52.42	+6.86	37 15 59.28	I.	Fair seeing; hazy.
	115.2	92.0							
	126.8	102.0	−1.294						Fair seeing; hazy.
	112.4	116.5							
α Lyræ	123.8	98.9	−1.350	−1.351	38 40 24.91	+6.56	38 40 31.47	I.	Foggy; tolerably well defined.
	111.1	114.4							
	111.7	116.3	−1.263						Much diffused.
	126.9	102.1							
31 Leonis Min..	123.6	103.1	−1.219	−1.232	37 18 16.26	+6.44	37 18 22.70	B.	Steady; light clouds.
	115.9	116.9							
	132.1	131.6	−1.206						Good seeing.
	142.5	123.7							
38 Leonis Min..	124.0	119.2	−1.550	−1.379	38 31 3.40	+6.19	38 31 9.59	B.	Fair seeing.
	132.2	112.2							
	138.4	120.1	−1.138						Good seeing.
	130.8	130.9							
B. A. C. 4311.	143.1	124.0	−1.469	−1.455	38 9 5.65	+7.43	38 9 13.08	B.	Good seeing.
	136.5	132.1							
	143.2	140.9	−1.394						Good seeing.
	152.7	132.7							
B. A. C. 4407.	136.3	132.6	−1.450	−1.367	38 2 40.47	+7.55	38 2 48.02	B.	Good seeing.
	145.0	125.5							
	152.8	133.7	−1.244						Good seeing.
	144.8	144.0							
17 H. Canum Venaticorum.	145.1	126.7	−1.206	−1.289	37 46 47.46	+7.68	37 46 55.14	B.	Good seeing.
	136.9	136.0							
	145.6	144.3	−1.344						Good seeing.
	156.0	135.8							
α Lyræ	159.9	139.6	−1.444	−1.560	38 40 25.32	+6.19	38 40 31.51	I.	1¼-inch aperture; unsteady.
	152.0	149.2							
	156.3	151.5	−1.638						3-inch aperture; unsteady.
	166.5	145.1							
B. A. C. 6365.	148.6	143.8	−1.513	−1.583	38 15 25.38	+6.09	38 15 31.47	I.	Steady.
	158.9	139.5							
	168.0	145.6	−1.625						Steady.
	160.0	156.4							
ζ′ Lyræ	153.2	132.0	−1.675	−1.719	37 28 54.23	+5.92	37 29 0.15	I.	Good seeing.
	148.0	142.4							
	162.2	157.3	−1.756						Good seeing.
	172.8	149.6							
θ Lyræ	152.0	149.2	−1.425	−1.597	37 55 28.03	+5.60	37 55 33.63	I.	Good seeing.
	161.6	141.6							
	172.8	149.6	−1.756						Very faint.
	164.5	159.6							
31 Leonis Min..	127.7	108.9	−1.375	−1.503	+37 18 16.71	+6.31	+37 18 23.02	I.	Very faint; steady.
	122.8	119.6							
	140.4	137.2	−1.594						Good seeing.
	150.7	128.4							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 May 3	E.	S.	9	....	....	....	51 15.1	51 40.1	52 6.2	52 31.5	52 56.5	53 9.9	53 23.2	53 35.9	53 49.1
		N.	9	....	....	....	57 52.3	57 24.3	56 54.0	56 24.4	55 57.5	55 42.0	55 29.9	55 16.5	55 1.7
	W.	N.	11	....	....	....	5 55.7	6 23.5	6 56.0	7 24.3	7 52.5	8 5.2	8 19.6	8 32.9	8 46.1
		S.	11	....	....	....	12 35.4	12 12.3	11 44.9	11 19.6	10 54.1	10 40.7	10 26.0	10 13.1	10 1.2
3	E.	S.	16	31 48.5	32 1.6	....	32 27.9	32 38.8	32 53.5	33 6.8	....	....	....	....	....
		N.	16	36 21.6	36 7.7	....	35 40.0	35 27.5	35 14.6	35 0.5	....	....	....	....	....
	W.	N.	19	7 5.1	7 18.4	....	7 46.1	7 58.0	8 11.5	8 25.5	....	....	....	....	....
		S.	19	11 37.8	11 25.4	....	10 58.6	10 46.2	10 33.8	10 20.0	....	....	....	....	....
3	E.	N.	18	....	....	....	....	....	0 34.7	1 8.8	1 41.0	1 57.0	2 14.2	2 30.5	2 48.5
		S.	18	....	....	....	....	....	7 21.5	6 38.7	5 57.6	5 38.2	5 19.5	4 59.9	4 40.9
	W.	S.	18	....	....	....	....	....	57 34.0	58 14.2	58 55.2	59 13.0	59 30.4	59 51.0	0 9.6
		N.	19	....	....	....	....	....	4 18.6	3 45.7	3 12.8	2 56.8	2 37.5	2 19.9	2 3.8
3	E.	S.	17	....	....	....	....	....	....	45 27.9	45 48.4	45 58.7	46 9.0	46 18.7	....
		N.	17	....	....	....	....	....	....	48 31.6	48 9.9	48 0.1	47 50.4	47 40.5	....
	W.	N.	19	....	....	....	....	....	....	22 53.9	23 15.5	23 26.0	23 35.9	23 46.7	....
		S.	19	....	....	....	....	....	....	25 56.0	25 35.2	25 24.9	25 15.5	25 7.8	....
3	E.	N.	17 25 10.1	25 25.1	25 38.1	25 52.1	26 5.0	26 19.6	26 33.0	26 46.0	27 0.5	....	....	....	....
		S.	17 30 35.9	30 21.8	30 6.8	29 52.0	29 38.5	29 24.7	29 10.7	28 56.0	28 42.2	....	....	....	....
	W.	S.	19 49 49.2	50 4.7	50 18.9	50 33.4	50 46.9	51 1.9	51 15.1	51 29.7	51 44.2	....	....	....	....
		N.	19 55 15.5	55 1.4	54 47.4	54 34.9	54 21.5	54 7.8	53 54.6	53 41.0	53 26.6	....	....	....	....
4	E.	S.	9 1 19.0	1 33.8	1 46.9	2 0.0	2 13.6	2 25.5	2 38.8	2 52.6	3 6.1	....	....	....	....
		N.	9 6 22.4	6 8.3	5 54.0	5 40.0	5 26.4	5 13.9	5 0.6	4 46.6	4 33.6	....	....	....	....
	W.	N.	11 34 44.2	34 58.1	35 12.1	35 26.1	35 40.1	35 53.0	36 6.8	36 20.4	36 33.8	....	....	....	....
		S.	11 39 46.3	39 33.0	39 19.7	39 6.6	38 52.9	38 41.0	38 27.9	38 14.7	38 1.9	....	....	....	....
4	E.	N.	9	....	....	....	51 1.0	51 26.5	51 51.5	52 16.4	52 42.8	52 55.0	53 7.4	53 21.2	53 35.0
		S.	9	....	....	....	57 59.5	57 29.2	57 1.4	56 33.1	56 3.6	55 50.1	55 35.6	55 21.0	55 7.3
	W.	S.	11	....	....	....	5 46.0	6 14.6	6 43.3	7 12.6	7 41.5	7 54.9	8 8.4	8 22.6	8 37.0
		N.	11	....	....	....	12 41.0	12 16.9	11 52.4	11 25.9	10 59.6	10 47.3	10 34.5	10 20.0	10 6.0
6	E.	N.	17	....	....	....	....	....	44 59.9	45 20.2	45 40.6	45 50.4	45 59.9	46 11.4	....
		S.	17	....	....	....	....	....	48 52.5	48 31.1	48 8.9	47 58.1	47 48.0	47 39.1	....
	W.	S.	19	....	....	....	....	....	22 21.7	22 42.9	23 5.5	23 15.7	23 25.6	23 37.1	....
		N.	19	....	....	....	....	....	26 17.0	25 55.7	25 35.3	25 26.0	25 17.0	25 4.9	....
8	E.	N.	17	....	....	....	44 18.0	44 37.6	44 56.4	45 16.5	45 36.5	45 47.1	45 57.0	....	....
		S.	17	....	....	....	49 33.2	49 12.5	48 52.7	48 29.5	48 8.5	47 57.0	47 46.5	....	....
	W.	S.	19	....	....	....	21 35.5	21 58.0	22 19.6	22 41.1	23 3.6	23 13.6	23 23.7	....	....
		N.	19	....	....	....	26 53.8	26 33.9	26 13.7	25 53.0	25 33.0	25 23.2	25 13.5	....	....
8	E.	S.	17 25 6.1	25 20.1	25 34.4	25 48.1	26 1.9	26 15.0	26 28.8	26 43.4	26 57.2	....	....	....	....
		N.	17 30 28.0	30 13.0	29 58.0	29 42.7	29 27.8	29 14.3	28 59.1	28 45.9	28 31.5	....	....	....	....
	W.	N.	19 49 44.4	49 59.5	50 14.2	50 29.5	50 43.9	50 57.2	51 12.3	51 26.6	51 40.5	....	....	....	....
		S.	19 55 6.2	54 52.0	54 38.8	54 24.9	54 11.1	53 57.7	53 42.9	53 29.5	53 15.7	....	....	....	....
8	E.	S.	18 8 26.5	8 43.8	8 59.5	9 16.5	9 32.5	9 47.7	10 4.6	....	....	....	....	....	....
		N.	18 14 54.9	14 36.8	14 18.8	14 1.4	13 43.4	13 27.0	13 8.6	....	....	....	....	....	....
	W.	N.	20 8 24.3	8 43.5	9 1.5	9 20.0	9 36.2	9 53.2	10 11.5	....	....	....	....	....	....
		S.	20 14 53.1	14 36.4	14 20.0	14 3.0	13 46.7	13 30.8	13 13.6	....	....	....	....	....	....
9	E.	N.	18	....	....	....	....	....	0 30.6	1 3.6	1 38.4	1 51.4	2 8.3	2 26.0	2 43.4
		S.	18	....	....	....	....	....	7 14.3	6 31.5	5 52.5	5 34.4	5 15.6	4 54.4	4 36.0
	W.	S.	18	....	....	....	....	....	57 26.3	58 6.4	58 44.5	59 5.6	59 21.6	59 42.3	0 0.9
		N.	19	....	....	....	....	....	4 9.2	3 37.2	3 4.9	2 47.0	2 35.0	2 12.1	1 52.6
9	E.	S.	17	....	....	44 1.4	44 21.3	44 38.4	44 59.1	45 19.5	....	45 50.4	45 59.7	....	....
		N.	17	....	....	49 54.8	49 29.5	49 11.3	48 47.0	48 25.0	....	47 52.9	47 43.3	....	....
	W.	N.	19	....	....	21 18.3	21 42.1	22 1.7	22 24.3	22 44.9	....	23 17.4	23 28.7	....	....
		S.	19	....	....	27 9.5	26 49.3	26 30.6	26 8.8	25 47.9	....	25 19.0	25 7.0	....	....
15	E.	S.	17 24 58.4	25 13.0	25 26.0	25 40.6	....	26 8.0	26 21.8	26 36.4	26 50.4	....	....	....	....
		N.	17 30 22.5	30 7.7	29 52.7	29 36.6	....	29 9.5	28 54.6	28 39.4	28 25.3	....	....	....	....
	W.	N.	19 49 35.8	49 50.9	50 5.4	50 20.9	....	50 49.9	51 4.2	51 18.1	51 32.6	....	....	....	....
		S.	19 54 58.5	54 44.5	54 30.8	54 16.9	....	53 49.4	53 35.1	53 22.0	53 8.0	....	....	....	....
15	E.	S.	18	....	....	....	9 25.3	9 42.0	9 58.3	10 14.4	10 29.3	10 38.3	10 47.4	....	....
		N.	18	....	....	....	13 36.3	13 20.2	13 2.0	12 45.2	12 28.7	12 20.0	12 12.0	....	....
	W.	N.	20	....	....	....	9 28.2	9 44.9	10 2.6	10 20.0	10 36.6	10 45.7	10 54.1	....	....
		S.	20	....	....	....	13 37.8	13 22.5	13 5.1	12 48.9	12 32.0	12 24.5	12 16.4	....	....
16	E.	S.	12 3 53.4	....	4 29.1	4 46.5	5 4.2	5 20.2	5 39.0	5 56.0	6 13.9	....	....	....	....
		N.	12 10 49.0	....	10 9.0	9 49.0	9 30.4	9 12.4	8 52.5	8 34.4	8 16.5	....	....	....	....
	W.	N.	13 56 8.0	....	56 46.8	57 6.8	57 25.9	57 43.4	58 3.8	58 21.3	58 40.0	....	....	....	....
		S.	14 3 4.0	....	2 27.9	2 10.0	1 51.7	1 35.0	1 17.6	0 59.7	0 42.8	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
38 Leonis Min..	132.0	124.4	−1.655	−1.596	+38 31 3.76	+6.04	+38 31 9.80	I.	Good seeing.
	139.8	121.4							
	147.3	126.9	−1.500						Good seeing.
	140.2	136.6							
θ Herculis.....	161.7	154.1	−1.656	−1.766	37 15 53.49	+6.21	37 15 59.70	B.	3-inch aperture; good seeing.
	168.1	149.2							
	177.1	154.9	−1.894						3-inch aperture; good seeing.
	170.4	162.3							
α Lyræ	176.0	152.0	−1.988	−1.874	38 40 25.05	+5.98	38 40 31.03	B.	3-inch aperture; fair seeing.
	168.6	160.8							
	169.2	162.4	−1.738						3-inch aperture; fair image.
	176.4	155.4							
B. A. C. 6365.	167.8	158.4	−2.031	−1.963	38 15 26.08	+5.88	38 15 31.96	B.	Good seeing.
	175.2	152.1							
	176.7	156.0	−1.888						Very faint; daylight.
	171.7	162.2							
ζ′ Lyræ........	172.0	152.0	−1.719	1.804	37 28 53.92	+5.71	37 28 59.63	B.	Good seeing.
	166.7	159.2							
	170.9	162.9	−1.906						Faint; steady.
	178.9	156.4							
31 Leonis Min..	122.0	112.6	−0.250	−0.573	37 18 15.74	+6.19	27 18 21.93	B.	Very faint; steady.
	116.1	121.5							
	141.8	147.2	−0.888						Good seeing.
	156.0	136.4							
38 Leonis Min..	122.9	127.9	−0.481	−0.587	38 31 3.09	+5.91	38 31 9.00	B.	Good seeing.
	134.9	122.2							
	147.0	131.8	−0.669						Fair seeing.
	140.0	144.5							
B. A. C. 6365.	197.1	202.7	−1.146	−0.955	38 15 27.22	+5.12	38 15 32.34	B.	Fair seeing.
	212.7	188.8							
	218.2	197.1	−0.800						Fair seeing; light fog; hazy.
	204.0	212.3							
B. A. C. 6365.	157.1	160.7	−0.913	−0.898	38 15 27.31	+4.59	38 15 31.90	B.	Fair seeing.
	171.0	152.8							
	184.1	164.0	0.881						Fair seeing.
	172.6	178.6							
ζ′ Lyræ........	159.6	143.4	0.888	−0.902	37 28 55.35	+4.44	37 28 59.79	B.	Fair seeing.
	156.0	158.0							
	174.3	180.0	0.925						Fair seeing; light clouds.
	188.0	167.5							
θ Lyræ........	173.1	155.6	−0.856	−0.815	37 55 28.44	+4.25	37 55 32.69	B.	Good seeing.
	164.2	168.0							
	173.1	180.8	−0.781						Faint; quite unsteady.
	188.2	168.0							
α Lyræ	184.0	188.8	−1.075	1.192	38 40 27.25	+4.42	38 40 31.67	I.	1¼-inch aperture; bad seeing; very unsteady.
	198.0	176.0							
	200.4	176.0	−1.325						1¼-inch aperture; unsteady.
	188.0	191.2							
B. A. C. 6365.	196.4	172.4	−1.238	1.213	38 15 27.04	+4.34	38 15 31.38	I.	Unsteady.
	184.1	188.3							
	187.1	192.9	−1.213						Faint; light fog.
	202.2	177.0							
ζ′ Lyræ	160.2	148.2	−0.550	−0.757	37 28 57.43	+2.88	37 29 0.31	B.	Fair seeing.
	155.9	159.1							
	171.0	174.4	0.975						Plain; steady; light clouds.
	183.0	164.0							
θ Lyræ........	172.0	156.0	−0.800	0.826	37 55 30.28	+2.78	37 55 33.06	B.	Fair seeing.
	164.0	167.2							
	171.8	176.0	−0.856						Light clouds; quite steady.
	183.2	165.3							
B. A. C. 4407.	148.0	141.5	−0.425	0.481	+38 2 43.67	+4.60	+38 2 48.27	B.	Good seeing.
	147.8	147.5							
	156.8	160.4	−0.531						Good seeing.
	166.2	154.1							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
May 16	E.	N.	12 21 27.6	21 43.6	21 58.8	22 14.1	22 28.7	22 43.7	22 58.5	23 14.3	23 29.9	....	....	....	....
		S.	12 27 35.4	27 18.5	27 1.8	26 45.4	26 29.9	26 13.9	25 57.4	25 41.7	25 25.5	....	....	....	....
	W.	S.	14 30 0.7	30 16.7	30 33.6	30 50.0	31 5.7	31 22.6	31 38.0	31 54.3	32 10.9	....	....	....	....
		N.	14 36 7.6	35 51.0	35 36.6	35 21.6	35 5.9	34 50.5	34 36.0	34 20.7	34 5.3	....	....	....	....
16	E.	S.	17	....	43 32.7	43 54.4	44 15.1	44 32.9	44 54.5	45 15.1	....	....	45 55.5	....	....
		N.	17	....	50 9.1	49 45.2	49 21.9	49 1.0	48 39.1	48 16.0	....	....	47 34.4	....	....
	W.	N.	19	....	20 47.0	21 11.0	21 32.5	21 53.4	22 16.1	22 38.6	....	....	23 19.6	....	....
		S.	19	....	27 21.4	27 0.9	26 39.8	26 20.8	26 0.0	25 39.5	....	....	25 0.6	....	....
16	E.	N.	17	....	....	....	25 50.0	26 5.4	26 18.4	26 31.4	26 45.5	26 52.6	26 59.7	....	....
		S.	17	....	....	....	29 25.0	29 10.3	28 57.4	28 42.8	28 27.4	28 21.0	28 14.3	....	....
	W.	S.	19	....	....	....	50 31.0	50 44.6	50 59.5	51 13.2	51 28.4	51 34.4	51 42.2	....	....
		N.	19	....	....	....	54 5.3	53 51.6	53 38.0	53 23.7	53 10.6	53 3.5	52 56.5	....	....
16	E.	N.	18	....	8 48.8	9 5.4	9 22.1	9 38.6	....	....	10 27.5	10 37.2	10 43.4	....	....
		S.	18	....	14 17.6	13 56.8	13 39.6	13 22.0	....	....	12 31.0	12 22.6	12 15.3	....	....
	W.	S.	20	....	8 48.6	9 5.2	9 23.0	9 41.4	....	....	10 32.8	10 41.8	10 49.5	....	....
		N.	20	....	14 13.5	13 57.4	13 41.8	13 24.7	....	....	12 36.7	12 27.4	12 19.6	....	....
16	E.	S.	18	....	56 8.7	56 27.5	56 47.3	57 6.4	....	....	58 3.3	....	....	....	....
		N.	19	....	2 19.0	1 57.5	1 34.4	1 16.2	....	....	0 14.8	....	....	....	....
	W.	N.	20	....	39 28.0	39 50.9	40 12.0	40 32.2	....	....	41 34.4	....	....	....	....
		S.	20	....	45 39.7	45 21.0	45 0.2	44 43.2	....	....	43 45.4	....	....	....	....
16	E.	N.	19	....	....	56 33.0	56 47.7	57 1.4	57 16.0	57 29.5	57 44.0	57 50.6	....	....	....
		S.	20	....	....	0 41.1	0 27.4	0 11.7	59 58.0	59 43.4	59 28.4	59 21.5	....	....	....
	W.	S.	22	....	....	18 0.1	18 13.7	18 27.9	18 41.6	18 56.8	19 11.6	19 19.0	....	....	....
		N.	22	....	....	22 7.2	21 52.3	21 38.7	21 25.0	21 12.0	20 57.2	20 49.4	....	....	....
17	E.	S.	11	....	48 16.9	....	48 56.0	49 11.9	49 32.3	49 50.9	50 9.6	50 18.7	50 28.0	....	....
		N.	11	....	54 21.2	....	53 40.4	53 20.3	52 59.0	52 39.1	52 19.0	52 10.1	52 0.0	....	....
	W.	N.	13	....	33 17.8	....	33 58.0	34 18.9	34 39.0	35 0.3	35 19.5	35 28.0	35 37.0	....	....
		S.	13	....	39 21.9	....	38 43.8	38 25.9	38 7.0	37 48.0	37 29.5	37 20.5	37 11.2	....	....
17	E.	N.	12	....	4 25.6	4 40.5	4 57.5	5 16.3	5 33.8	5 50.3	6 9.5	6 17.0	....	....	....
		S.	12	....	10 12.0	9 53.1	9 34.5	9 15.8	8 58.1	8 39.6	8 19.3	8 12.3	....	....	....
	W.	S.	13	....	56 43.9	57 1.7	57 20.7	57 38.9	57 57.2	58 16.0	58 35.6	58 43.7	....	....	....
		N.	14	....	2 31.5	2 13.0	1 56.5	1 39.0	1 22.5	1 4.5	0 46.0	0 38.0	....	....	....
17	E.	S.	12	....	22 0.0	22 16.5	22 32.5	22 47.2	23 2.9	23 17.8	23 34.5	23 43.1	23 50.1	....	....
		N.	12	....	26 57.5	26 42.0	26 23.6	26 8.2	25 51.7	25 35.8	25 19.8	25 10.9	25 3.5	....	....
	W.	N.	14	....	30 37.0	30 52.0	31 9.6	31 25.0	31 41.8	31 58.8	32 13.5	32 21.0	32 29.4	....	....
		S.	14	....	35 33.0	35 16.6	35 1.0	34 47.0	34 31.1	34 13.7	33 59.6	33 52 2	33 44.9	....	....
17	E.	N.	14	....	....	....	....	....	....	5 35.9	6 30.5	6 54.0	7 18.1	7 47.3	8 14.5
		S.	14	....	....	....	....	....	....	15 33.0	14 2.5	13 25.8	12 49.5	12 7.1	11 35.1
	W.	S.	14	....	....	....	....	....	....	37 27.3	39 2.1	39 38.0	40 16.4	40 56.0	41 34.3
		N.	14	....	....	....	....	....	....	47 28.0	46 35.5	46 11.6	45 48.4	45 22.6	44 50.4
17	E.	N.	18	....	....	....	....	....	0 20.4	....	1 24.4	1 41.1	1 57.9	2 15.7	2 34.3
		S.	18	....	....	....	....	....	7 3.0	....	5 45.0	5 25.3	5 6.5	4 47.9	4 27.5
	W.	S.	18	....	....	....	....	....	57 16.0	....	58 35.4	58 53.5	59 10.9	59 30.4	59 49.4
		N.	19	....	....	....	....	....	3 58.6	....	2 53.4	2 36.0	2 18.6	2 2.3	1 45.9
17	E.	S.	17	....	....	....	....	....	44 53.0	45 14.0	45 34.1	45 43.2	45 53.0	....	....
		N.	17	....	....	....	....	....	48 37.7	48 16.9	47 54.6	47 43.6	47 33.5	....	....
	W.	N.	19	....	....	....	....	....	22 14.8	22 35.0	22 55.7	23 8.0	23 17.6	....	....
		S.	19	....	....	....	....	....	25 59.4	25 38.6	25 18.6	25 9.7	24 59.9	....	....
17	E.	N.	17	....	25 22.8	25 35.7	25 49.6	26 3.3	26 16.9	26 30.5	26 44.2	....	....	....	....
		S.	17	....	29 51.1	29 36.0	29 22.5	29 8.6	28 54.7	28 40.2	28 25.7	....	....	....	....
	W.	S.	19	....	50 1.0	50 15.7	50 29.8	50 44.4	50 59.2	51 12.0	51 27.6	....	....	....	....
		N.	19	....	54 31.9	54 18.0	54 3.1	53 49.4	53 36.0	53 23.0	53 8.6	....	....	....	....
17	E.	S.	18	....	....	....	....	9 39.6	9 55.6	10 13.5	10 29.9	10 38.5	10 46.0	....	....
		N.	18	....	....	....	....	13 17.4	12 59.0	12 42.0	12 25.0	12 17.0	12 7.9	....	....
	W.	N.	20	....	....	....	....	9 42.8	10 1.7	10 18.5	10 35.5	10 43.4	10 52.2	....	....
		S.	20	....	....	....	....	13 20.0	13 3.0	12 45.9	12 29.5	12 21.4	12 14.0	....	....
17	E.	N.	19	....	....	56 32.4	56 46.5	57 0.9	57 13.7	57 28.3	57 42.7	57 50.1	57 56.6	....	....
		S.	20	....	....	0 39.4	0 25.0	0 10.0	59 56.0	59 41.2	59 27.3	59 20.0	59 13.3	....	....
	W.	S.	22	....	....	17 57.4	18 12.8	18 27.5	18 41.0	18 55.8	19 10.4	19 18.0	19 24.9	....	....
		N.	22	....	....	22 5.5	21 52.2	21 38.0	21 24.4	21 9.0	20 55.6	20 48.1	20 41.6	....	....
18	E.	N.	17	....	....	43 47.8	44 7.7	44 27.0	44 45.3	45 4.3	45 25.6	45 36.0	45 46.4	....	....
		S.	17	....	....	49 47.0	49 24.8	49 2.7	48 43.8	48 19.9	47 58.0	47 48.0	47 38.8	....	....
	W.	S.	19	....	....	21 3.0	21 23.4	21 46.7	22 7.6	22 25.5	22 51.9	23 1.8	23 12.0	....	....
		N.	19	....	....	27 0.8	26 42.9	26 22.2	26 3.0	25 43.0	25 21.4	25 11.4	25 2.4	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ′ "	"	° ′ "		
17 H. Canum Venaticorum.	147.7	148.0	—0.469	—0.483	+37 46 50.37	+4.54	+37 46 54.91	B.	Good seeing.
	153.7	145.9							
	168.0	155.6	—0.494						Good seeing.
	160.0	164.5							
B. A. C. 6365.	171.8	161.7	—0.481	—0.465	38 15 28.80	+2.77	38 15 31.57	I.	Diffuse.
	168.0	170.4							
	174.7	179.5	—0.450						Good seeing.
	184.0	172.0							
ζ′ Lyræ........	161.5	163.2	—0.481	—0.474	37 28 57.81	+2.64	37 29 0.45	I.	Tolerably steady.
	171.1	161.7							
	186.0	171.6	—0.475						Good image; very steady.
	176.4	183.2							
θ Lyræ........	170.7	169.3	0.819	—0.687	37 55 30.74	+2.56	37 55 33.30	I.	Somewhat unsteady.
	177.9	165.8							
	187.8	174.2	—0.563						Fine seeing.
	180.0	184.6							
22 Cygni.......	182.5	167.7	—0.650	—0.609	38 10 31.72	+2.46	38 10 34.18	I.	Good seeing.
	174.1	178.5							
	180.4	185.6	—0.575						Very faint; clear; sun rising.
	189.2	174.8							
τ Cygni.......	177.2	182.8	—0.475	—0.389	37 32 44.63	+2.13	37 32 46.76	I.	Good seeing.
	187.2	174.0							
	184.4	171.6	—0.312						Faint, but steady.
	172.5	180.3							
B. A. C. 4311.	145.5	144.5	—0.038	—0.114	38 9 8.55	+4.42	38 9 12.97	I.	Fine seeing.
	147.6	148.0							
	157.2	160.8	—0.188						Fine seeing.
	164.7	158.1							
B. A. C. 4407.	147.7	148.8	—0.106	—0.179	38 2 43.67	+4.35	38 2 48.02	I.	Fine seeing.
	151.6	148.8							
	167.6	158.0	—0.250						Fine seeing.
	160.8	166.4							
17 H. Canum Venaticorum.	152.0	149.2	—0.056	—0.125	37 46 50.84	+4.28	37 46 55.12	I.	Good seeing.
	151.5	153.4							
	161.9	167.0	—0.194						Good seeing.
	169.9	161.7							
γ Bootis.......	161.5	165.5	—0.150	—0.229	38 49 9.80	+3.78	38 49 13.58	I.	Diffuse image.
	167.4	161.0							
	169.3	162.7	—0.306						Diffuse image.
	167.1	168.8							
α Lyræ........	184.0	188.0	—0.238	—0.326	38 40 28.71	+2.57	38 40 31.28	B.	1¼-inch aperture; rather unsteady.
	191.1	183.3							
	194.3	185.3	—0.419						1¼-inch aperture; unsteady.
	189.7	192.0							
B. A. C. 6365.	189.2	180.2	—0.338	—0.390	38 15 29.29	+2.51	38 15 31.80	B.	Good seeing.
	184.0	187.6							
	190.0	192.5	—0.450						Fair seeing; light clouds.
	196.6	186.9							
ζ′ Lyræ........	182.7	185.6	—0.331	—0.365	37 28 57.14	+2.38	37 28 59.52	B.	Good seeing.
	188.5	180.3							
	198.7	187.5	—0.413						Fair seeing; light clouds.
	191.2	195.8							
θ Lyræ........	191.2	183.2	—0.275	—0.336	37 55 30.75	+2.32	37 55 33.07	B.	1¼-inch aperture; faint; little unsteady.
	185.0	188.6							
	191.6	195.6	—0.406						Full aperture; clouds.
	198.9	188.4							
τ Cygni.......	191.2	196.0	—0.406	—0.230	37 32 44.58	+1.98	37 32 46.56	B.	Fair seeing; light clouds.
	199.3	188.0							
	198.2	188.8	—0.063						Faint; steady; light clouds.
	188.4	196.8							
B. A. C. 6365	165.3	168.1	—0.225	—0.252	+38 15 29.26	+2.22	+38 15 31.48	I.	Good seeing.
	172.0	165.6							
	182.1	172.6	—0.281						Good seeing.
	178.0	183.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
May 18	E.	S.	17	....	....	....	25 51.4	26 4.6	....	26 32.5	26 46.9	26 52.5	26 59.6	....	....
		N.	17	....	....	....	29 17.2	29 4.3	....	28 35.4	28 21.9	28 14.5	28 7.5	....	....
	W.	N.	19	....	....	....	50 33.0	50 46.3	....	51 15.2	51 29.5	51 36.7	51 43.9	....	....
		S.	19	....	....	....	53 57.6	53 45.5	....	53 17.6	53 3.7	52 57.2	52 51.2	....	....
18	E.	S.	18	....	8 50.0	9 6.2	9 22.8	9 38.8	9 55.0	10 12.4	10 28.6	10 37.0	10 45.2	....	....
		N.	18	....	14 9.4	13 51.8	13 32.0	13 16.3	12 58.0	12 41.4	12 23.9	12 15.7	12 8.0	....	....
	W.	N.	20	....	8 49.0	9 7.3	9 24.5	9 42.5	9 59.5	10 17.6	10 35.3	10 43.2	10 51.1	....	....
		S.	20	....	14 8.6	13 50.6	13 34.1	13 19.1	13 1.9	12 45.6	12 28.7	12 20.6	12 12.4	....	....
18	E.	S.	19	....	....	....	56 49.3	57 2.4	57 17.6	57 31.4	57 44.8	57 52.8	....	....	....
		N.	20	....	....	....	0 19.6	0 6.1	59 50.9	59 36.4	59 22.0	59 15.0	....	....	....
	W.	N.	22	....	....	....	18 16.3	18 29.4	18 45.0	18 59.2	19 14.3	19 21.0	....	....	....
		S.	22	....	....	....	21 45.7	21 32.7	21 18.8	21 3.9	20 50.4	20 43.4	....	....	....
19	E.	N.	11	....	48 10.5	48 28.9	48 48.0	49 7.1	49 25.2	49 44.2	50 3.0	50 11.3	50 20.5	....	....
		S.	11	....	54 23.0	54 3.0	53 42.6	53 21.8	53 3.5	52 43.0	52 23.8	52 12.9	52 4.3	....	....
	W.	S.	13	....	33 9.0	33 29.9	33 50.0	34 11.4	34 29.7	34 49.4	35 10.0	35 20.0	35 28.9	....	....
		N.	13	....	39 21.9	39 4.0	38 44.9	38 26.9	38 8.5	37 50.0	37 30.5	37 22.0	37 13.0	....	....
19	E.	S.	12	....	4 25.1	4 43.5	5 1.3	5 17.5	5 35.8	5 54.0	6 11.8	6 19.6	6 27.9	....	....
		N.	12	....	10 6.4	9 46.6	9 26.5	9 9.2	8 48.9	8 31.0	8 12.8	8 3.9	7 55.2	....	....
	W.	N.	13	....	56 42.7	57 3.3	57 22.8	57 40.3	57 59.5	58 19.0	58 37.6	58 46.1	58 54.8	....	....
		S.	14	....	2 22.6	2 6.5	1 48.2	1 31.6	1 13.3	0 56.2	0 39.0	0 30.0	0 20.8	....	....
19	E.	N.	12	....	21 55.3	22 10.5	22 26.2	22 41.5	22 56.0	23 11.9	23 28.5	23 35.8	23 42.2	....	....
		S.	12	....	26 58.5	26 41.7	26 26.0	26 9.6	25 54.8	25 38.5	25 22.0	25 14.6	25 6.2	....	....
	W.	S.	14	....	30 28.3	30 45.3	31 1.9	31 17.6	31 34.0	31 49.6	32 5.8	32 13.9	32 21.1	....	....
		N.	14	....	35 32.5	35 17.7	35 2.5	34 47.0	34 32.5	34 16.9	34 1.0	33 53.6	33 46.7	....	....
19	E.	S.	14	....	....	....	....	....	....	5 52.0	6 42.6	7 6.9	7 30.5	8 1.0	8 26.1
		N.	14	....	....	....	....	....	....	15 1.9	13 37.6	13 1.5	12 24.3	11 49.5	11 17.4
	W.	N.	14	....	....	....	....	....	....	37 53.1	39 19.4	39 56.0	40 30.7	41 12.5	41 41.0
		S.	14	....	....	....	....	....	....	47 8.7	46 17.5	45 54.0	45 29.1	44 58.6	44 32.1
23	E.	N.	18	....	9 40.0	9 56.0	10 13.0	10 30.0	10 46.1	11 1.9	....	....	11 35.4	....	....
		S.	18	....	15 5.2	14 47.6	14 31.3	14 12.5	13 57.0	13 38.3	....	....	13 4.4	....	....
	W.	S.	20	....	9 37.7	9 56.4	10 14.2	10 31.5	10 48.4	11 5.4	....	....	11 39.4	....	....
		N.	20	....	15 3.0	14 45.7	14 31.6	14 13.9	13 59.0	13 42.4	....	....	13 10.4	....	....
23	E.	S.	18	....	....	....	....	57 56.0	58 15.0	58 35.4	58 52.0	59 2.6	59 12.5	....	....
		N.	19	....	....	....	....	2 8.4	1 48.4	1 26.4	1 7.4	0 58.0	0 47.7	....	....
	W.	N.	20	....	....	....	....	41 22.7	41 42.6	42 3.2	42 23.2	42 31.4	42 42.4	....	....
		S.	20	....	....	....	....	45 34.7	45 13.6	44 54.6	44 35.2	44 26.0	44 16.0	....	....
24	E.	S.	11	....	49 8.0	49 27.3	49 46.6	50 4.0	50 22.7	50 41.0	51 0.4	51 9.0	....	....	....
		N.	11	....	55 10.9	54 50.9	54 29.9	54 10.4	53 49.5	53 29.4	53 10.6	53 1.1	....	....	....
	W.	N.	13	....	34 6.9	34 27.7	34 49.5	35 8.1	35 28.5	35 49.3	36 9.0	36 18.1	....	....	....
		S.	13	....	40 11.5	39 52.9	39 34.2	39 15.9	38 56.0	38 37.5	38 18.5	38 9.9	....	....	....
24	E.	N.	12	....	5 15.5	5 32.5	5 49.0	6 6.8	6 24.7	6 41.6	6 59.7	7 7.6	7 16.5	....	....
		S.	12	....	11 2.5	10 43.8	10 25.1	10 6.1	9 48.3	9 29.8	9 10.5	9 1.9	8 53.6	....	....
	W.	S.	13	....	57 33.0	57 51.4	58 10.1	58 28.9	58 47.4	59 5.9	59 24.4	59 32.7	59 42.2	....	....
		N.	14	....	3 19.5	3 2.1	2 45.2	2 28.1	2 11.1	1 52.9	1 35.7	1 26.8	1 18.3	....	....
24	E.	S.	12	....	22 52.0	23 7.0	23 23.0	23 37.6	23 53.6	24 9.9	24 24.9	....	....	....	....
		N.	12	....	27 49.6	27 32.0	27 14.5	26 59.8	26 42.8	26 27.0	26 10.2	....	....	....	....
	W.	N.	14	....	31 25.4	31 42.6	31 58.6	32 14.1	32 31.4	32 46.9	33 3.0	....	....	....	....
		S.	14	....	36 23.3	36 6.4	35 51.1	35 35.9	35 20.1	35 5.6	34 50.0	....	....	....	....
24	E.	N.	14	....	....	....	....	....	....	6 32.5	7 23.0	7 48.9	8 12.6	8 40.8	9 10.3
		S.	14	....	....	....	....	....	....	16 28.7	14 55.5	14 19.7	13 41.9	13 7.5	12 26.4
	W.	S.	14	....	....	....	....	....	....	38 15.7	39 48.9	40 28.6	41 2.3	41 42.0	42 20.8
		N.	14	....	....	....	....	....	....	48 16.3	47 27.4	47 0.2	46 35.2	46 5.0	45 37.0
24	E.	S.	17	....	44 24.0	44 43.9	45 4.7	45 23.9	45 44.5	46 4.1	46 24.4	46 34.8	46 44.4	....	....
		N.	17	....	50 59.9	50 36.2	50 12.7	49 52.4	49 30.1	49 8.7	48 48.2	48 37.5	48 27.0	....	....
	W.	N.	19	....	21 33.9	21 57.4	22 19.6	22 40.7	23 2.9	23 25.4	23 45.8	23 56.7	24 7.8	....	....
		S.	19	....	28 8.1	27 47.8	27 28.1	27 8.7	26 48.0	26 27.0	26 6.9	25 57.7	25 47.4	....	....
24	E.	N.	17	....	26 14.0	26 28.0	26 41.0	26 55.1	27 8.0	27 21.9	27 36.1	....	....	....	....
		S.	17	....	30 42.6	30 28.6	30 14.4	30 0.4	29 45.8	29 31.5	29 17.0	....	....	....	....
	W.	S.	19	....	50 52.1	51 7.0	51 19.9	51 34.1	51 47.5	52 2.0	52 16.7	....	....	....	....
		N.	19	....	55 19.8	55 5.7	54 52.2	54 39.0	54 26.4	54 12.7	53 58.0	....	....	....	....
24	E.	N.	18	....	9 40.4	9 56.0	10 11.8	10 28.0	10 44.7	11 0.9	....	....	....	....	....
		S.	18	....	15 4.8	14 48.4	14 29.2	14 12.5	13 55.2	13 37.9	....	....	....	....	....
	W.	S.	20	....	9 36.9	9 54.8	10 11.7	10 29.1	10 46.0	11 3.2	....	....	....	....	....
		N.	20	....	15 1.0	14 45.4	14 29.6	14 13.0	13 57.0	13 41.0	....	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
ζ′ Lyræ	168.2	161.8	−0.225	0.254	+37 28 57.15	+2.10	+37 28 59.25	I.	Good seeing.
	165.3	168.1							
	179.6	184.0	−0.288						Good seeing.
	186.5	177.5							
θ Lyræ	173.2	165.4	0.444	−0.387	37 55 30.79	+2.05	37 55 32.84	I.	Good seeing.
	171.4	172.1							
	180.0	184.4	0.338						Fine seeing.
	187.9	178.1							
τ Cygni	187.9	176.0	−0.469	−0.287	37 32 44.56	+1.81	37 32 46.37	I.	Good seeing.
	180.0	184.4							
	179.9	188.1	0.113						Very faint.
	187.6	177.6							
B. A. C. 4311	136.8	139.2	+0.025	−0.117	38 9 9.90	+3.98	38 9 13.88	I.	Good seeing.
	140.0	138.0							
	152.1	145.2	0.256						Good seeing.
	148.8	151.6							
B. A. C. 4407	140.0	138.0	0.138	−0.146	38 2 44.45	+3.88	38 2 48.33	I.	Good seeing.
	140.3	140.1							
	149.4	151.4	−0.150						Good seeing.
	153.6	149.2							
17 H. Canum Venaticorum	140.4	140.8	−0.094	−0.230	37 46 51.81	+3.77	37 46 55.58	I.	Good seeing.
	145.0	143.1							
	156.2	150.0	0.363						Good seeing.
	152.0	152.4							
γ Bootis	153.6	149.2	−0.263	−0.427	38 49 10.46	+3.20	38 49 13.66	I.	Good seeing.
	152.0	152.2							
	155.5	154.2	−0.581						Good seeing.
	160.0	152.0							
θ Lyræ	179.6	184.4	+0.244	+0.307	37 55 32.49	+0.61	37 55 33.10	I.	Fair seeing.
	186.2	185.3							
	198.1	193.8	+0.381						Fair seeing.
	190.6	201.0							
22 Cygni	192.8	188.0	+0.219	+0.234	38 10 33.69	+0.66	38 10 34.35	I.	Fair seeing.
	188.4	196.7							
	190.5	200.2	+0.256						Fair seeing.
	197.6	192.0							
B. A. C. 4311	145.2	148.8	+0.400	+0.365	38 9 9.87	+3.19	38 9 13.06	I.	Fair seeing.
	148.8	151.6							
	161.2	160.8	+0.325						Fair seeing.
	160.8	166.4							
B. A. C. 4407	149.2	152.0	+0.425	+0.308	38 2 45.53	+3.01	38 2 48.54	I.	Fair seeing.
	151.4	155.4							
	161.9	165.7	+0.188						Fair seeing.
	166.4	165.6							
17 H. Canum Venaticorum	151.8	156.2	+0.325	+0.241	37 46 52.58	+2.79	37 46 55.37	I.	Good seeing.
	155.2	156.0							
	169.4	167.8	+0.156						Good seeing.
	168.3	172.4							
γ Bootis	167.6	165.2	+0.119	+0.148	38 49 12.07	+2.00	38 49 14.07	I.	Fair seeing.
	165.6	169.9							
	168.0	173.2	+0.175						Fair seeing.
	173.6	171.2							
B. A. C. 6365	191.2	189.6	−0.350	0.299	38 15 31.78	+0.43	38 15 32.21	B.	Fair seeing.
	192.4	188.4							
	194.7	192.5	−0.256						Fair seeing.
	195.1	193.2							
ζ′ Lyræ	192.0	188.0	−0.338	−0.334	37 28 59.62	+0.33	37 28 59.95	B.	Fair seeing; little unsteady.
	191.0	189.6							
	195.7	193.8	−0.344						Fair seeing.
	196.4	192.8							
θ Lyræ	192.0	188.5	−0.381	−0.344	37 55 32.83	+0.34	+37 55 33.17	B.	Fair seeing.
	190.9	188.3							
	196.4	195.4	−0.319						Fair seeing.
	198.8	194.7							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 May 25	E.	N.	11	48 43.5	49 1.6	49 20.0	49 38.0	49 57.3	50 15.8	50 34.4	50 53.0	51 2.0	....	....	....
		S.	11	55 36.0	55 15.0	54 55.0	54 34.8	54 14.7	53 55.0	53 35.1	53 15.0	53 6.4	....	....	....
	W.	S.	13	33 38.5	33 59.0	34 19.4	34 39.0	34 59.5	35 19.0	35 40.0	36 0.5	36 9.9	....	....	....
		N.	13	40 32.0	40 13.9	39 55.6	39 37.4	39 19.7	39 0.6	38 42.1	38 23.4	38 14.4	....	....	....
25	E.	S.	12	....	5 17.6	5 35.6	5 54.1	6 10.0	6 28.0	6 46.0	7 4.6	....	....	....	....
		N.	12	....	10 56.2	10 36.7	10 17.1	9 59.6	9 40.1	9 22.0	9 3.0	....	....	....	....
	W.	N.	13	....	57 34.3	57 53.2	58 13.5	58 31.3	58 50.6	59 9.6	59 28.1	....	....	....	....
		S.	14	....	3 13.0	2 55.6	2 36.9	2 19.7	2 2.0	1 44.0	1 27.6	....	....	....	....
25	E.	N.	12 22 15.0	22 30.5	22 46.4	23 2.6	23 16.9	23 32.7	23 47.7	24 1.9	....	....	....	....	....
		S.	12 28 24.6	28 8.3	27 51.4	27 35.3	27 19.8	27 3.5	26 48.0	26 31.1	....	....	....	....	....
	W.	S.	14 30 45.6	31 2.9	31 19.1	31 35.8	31 51.6	32 8.3	32 23.9	32 40.0	....	....	....	....	....
		N.	14 36 55.0	36 39.0	36 24.5	36 9.1	35 53.8	35 38.0	35 23.8	35 8.8	....	....	....	....	....
31	E.	S.	12	....	22 42.0	22 58.1	23 13.5	23 28.4	23 44.7	24 0.8	24 15.8	24 23.2	24 32.0	....	....
		N.	12	....	27 39.0	27 21.7	27 5.5	26 50.5	26 32.8	26 17.6	26 1.5	25 54.5	25 46.4	....	....
	W.	N.	14	....	31 14.6	31 30.1	31 45.5	32 2.5	32 19.9	32 36.3	32 51.8	32 59.5	33 6.4	....	....
		S.	14	....	36 12.5	35 55.5	35 40.1	35 25.4	35 10.1	34 53.6	34 38.0	34 30.4	34 23.9	....	....
31	E.	N.	14	....	....	....	....	....	....	....	7 19.9	7 42.3	8 5.8	8.38.1	9 6.4
		S.	14	....	....	....	....	....	....	....	14 54.0	14 13.1	13 41.3	12 59.0	12 23.5
	W.	S.	14	....	....	....	....	....	....	....	39 33.0	40 11.0	40 47.5	41 29.0	42 2.9
		N.	14	....	....	....	....	....	....	....	47 14.3	46 45.0	46 23.0	45 54.4	45 24.3
June 1	E.	N.	12	....	....	....	23 10.1	23 25.4	....	23 55.4	24 11.2	24 19.0	24 26.6	....	....
		S.	12	....	....	....	27 10.9	26 54.6	....	26 22.5	26 6.8	25 58.9	25 50.5	....	....
	W.	S.	14	....	....	....	31 42.2	31 57.1	....	32 29.8	32 46.2	32 54.0	33 1.0	....	....
		N.	14	....	....	....	35 41.5	35 27.0	....	34 56.0	34 39.5	34 33.5	34 25.9	....	....
1	E.	S.	18	....	56 48.7	57 8.9	57 28.2	57 45.8	58 4.9	58 23.8	58 44.6	58 52.4	59 1.5	....	....
		N.	19	....	3 2.0	2 39.0	2 18.0	1 57.0	1 37.0	1 15.4	0 57.0	0 47.0	0 36.5	....	....
	W.	N.	20	....	40 2.2	40 25.6	40 45.4	41 5.4	41 27.7	41 46.6	42 7.5	42 17.0	42 25.9	....	....
		S.	20	....	46 14.5	45 54.4	45 36.6	45 17.5	44 58.5	44 40.9	44 20.0	44 11.2	44 0.6	....	....
1	E.	N.	19	....	24 25.6	24 43.5	24 59.9	25 18.2	25 33.8	25 51.9	....	26 18.1	26 28.0	....	....
		S.	19	....	30 14.3	29 54.2	29 35.2	29 16.6	28 58.4	28 40.6	....	28 12.6	28 3.1	....	....
	W.	S.	21	....	15 57.0	16 16.0	16 35.0	16 54.0	17 12.1	17 29.6	....	17 59.4	18 6.0	....	....
		N.	21	....	21 46.7	21 28.7	21 10.8	20 53.8	20 36.6	20 19.0	....	19 52.5	19 44.6	....	....
4	E.	S.	12	....	22 35.4	22 51.0	23 7.1	23 21.5	23 37.5	23 53.1	24 8.2	....	....	....	....
		N.	12	....	27 32.0	27 15.2	26 58.5	26 42.6	26 26.2	26 10.5	25 54.4	....	....	....	....
	W.	N.	14	....	31 8.4	31 25.4	31 42.5	31 57.9	32 14.6	32 30.4	32 46.4	....	....	....	....
		S.	14	....	36 3.9	35 48.0	35 33.6	35 18.7	35 3.0	34 47.6	34 31.6	....	....	....	....
4	E.	S.	18	....	56 44.9	57 4.1	57 24.0	57 41.8	58 1.2	58 20.7	58 39.6	58 48.6	58 58.7	....	....
		N.	19	....	2 54.7	2 34.2	2 12.2	1 52.4	1 31.8	1 11.0	0 51.0	0 42.0	0 31.7	....	....
	W.	N.	20	....	40 0.0	40 21.9	40 44.0	41 3.4	41 24.6	41 44.9	42 4.6	42 14.4	42 23.5	....	....
		S.	20	....	46 9.9	45 51.4	45 30.8	45 13.3	44 53.0	44 34.4	44 15.4	44 6.1	43 56.8	....	....
4	E.	N.	19	....	24 19.9	24 36.0	24 53.5	25 11.5	....	25 45.9	....	....	....	....	....
		S.	19	....	30 10.0	29 51.7	29 32.8	29 13.6	....	28 37.9	....	....	....	....	....
	W.	S.	21	....	15 51.8	16 10.2	16 30.4	16 48.1	....	17 24.2	....	....	....	....	....
		N.	21	....	21 43.8	21 26.0	21 8.9	20 50.8	....	20 17.2	....	....	....	....	....
4	E.	S.	19 56 30.2	56 44.1	....	57 13.0	57 27.6	57 40.5	57 55.3	58 8.6	58 23.0	....	....	....	....
		N.	20 1 58.2	1 41.1	....	1 11.6	0 57.2	0 44.0	0 28.5	0 13.4	59 59.7	....	....	....	....
	W.	N.	22 17 50.1	18 5.5	....	18 35.3	18 50.0	19 4.6	19 20.8	19 34.5	19 49.5	....	....	....	....
		S.	22 23 17.8	23 3.0	....	22 34.9	22 20.4	22 6.6	21 52.6	21 37.8	21 24.1	....	....	....	....
5	E.	S.	18	....	....	....	57 22.8	57 40.8	58 0.3	58 19.4	58 39.0	58 48.0	58 57.2	....	....
		N.	19	....	....	....	2 10.0	1 49.9	1 29.0	1 9.2	0 48.8	0 38.6	0 28.7	....	....
	W.	N.	20	....	....	....	40 42.9	41 1.8	41 22.7	41 43.9	42 4.4	42 13.6	42 24.0	....	....
		S.	20	....	....	....	45 29.5	45 10.8	44 51.1	44 32.7	44 13.8	44 4.0	43 54.2	....	....
8	E.	N.	18	....	56 37.5	56 54.6	....	57 32.5	57 50.3	....	58 29.4	58 39.3	58 48.4	....	....
		S.	19	....	2 56.8	2 37.8	....	1 56.2	1 36.1	....	0 54.9	0 44.2	0 34.5	....	....
	W.	S.	20	....	39 48.8	40 9.3	....	40 51.6	41 11.8	....	41 53.5	42 3.5	42 11.5	....	....
		N.	20	....	46 11.2	45 54.0	....	45 16.1	44 57.5	....	44 17.5	44 8.3	43 59.8	....	....
8	E.	S.	19	....	....	....	....	25 13.9	25 32.4	25 50.3	26 9.8	26 17.0	26 26.1	....	....
		N.	19	....	....	....	....	29 3.1	28 45.4	28 26.7	28 7.7	28 0.1	27 50.5	....	....
	W.	N.	21	....	....	....	....	16 49.0	17 10.0	17 28.3	17 45.8	17 54.8	18 4.0	....	....
		S.	21	....	....	....	....	20 41.7	20 22.9	20 4.7	19 46.4	19 38.5	19 28.4	....	....
11	E.	N.	12	....	....	22 41.7	....	23 12.1	23 26.8	23 42.4	23 58.0	24 6.1	24 13.0	....	....
		S.	12	....	....	27 16.0	....	26 42.4	26 26.6	26 9.8	25 54.5	25 47.0	25 39.0	....	....
	W.	S.	14	....	....	31 13.0	....	31 45.5	32 2.0	32 17.0	32 33.8	32 41.8	32 50.3	....	....
		N.	14	....	....	35 48.5	....	35 16.9	35 1.8	34 46.4	34 30.9	34 23.1	34 16.0	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
B. A. C. 4311	134.2	133.0	−0.169	−0.184	+38 9 10.09	+3.06	+38 9 13.15	B.	Good seeing.
	134.9	133.4							
	144.4	142.6	−0.194						Fair seeing.
	145.6	144.3							
B. A. C. 4407	135.6	133.2	−0.194	−0.225	38 2 46.08	+2.86	38 2 48.94	B.	Good seeing.
	135.8	135.1							
	146.8	145.1	−0.250						Fair seeing.
	147.7	145.4							
17 H. Canum Venaticorum.	135.9	135.9	−0.113	−0.196	37 46 52.94	+2.63	37 46 55.57	B.	Fair seeing.
	138.4	136.6							
	149.8	148.3	−0.275						Fair seeing.
	150.9	148.0							
17 H. Canum Venaticorum.	132.2	132.6	−0.113	−0.421	37 46 54.09	+1.45	37 46 55.54	I.	Fair seeing.
	135.1	132.9							
	163.2	152.0	−0.725						Tolerably steady.
	156.8	156.4							
γ Bootis	164.0	152.0	−0.663	−0.765	38 49 13.59	+0.39	38 49 13.98	I.	Fair seeing.
	156.8	158.2							
	156.8	156.4	−0.850						Fair seeing.
	164.0	150.8							
17 H. Canum Venaticorum.	172.5	156.0	−2.275	−2.065	37 46 54.64	+1.24	37 46 55.88	B.	Fair seeing.
	181.0	161.1							
	201.9	189.4	−1.900						Fair seeing.
	206.7	188.8							
22 Cygni	131.1	119.1	−1.375	−1.547	38 10 36.33	−1.57	38 10 34.76	I.	Fair seeing.
	132.8	122.8							
	147.6	132.4	−1.663						Fair seeing.
	146.5	135.1							
40 Cygni	137.6	125.2	−1.513	−1.567	38 3 24.62	−1.38	38 3 23.24	I.	Fair seeing.
	139.3	127.5							
	145.9	136.9	−1.575						Fair seeing.
	151.1	134.9							
17 H. Canum Venaticorum.	128.4	132.0	+0.475	+0.204	37 46 53.45	+0.69	37 46 54.14	B.	Good seeing; thin light clouds.
	129.1	133.1							
	143.6	144.4	−0.075						Good seeing.
	144.0	142.0							
22 Cygni	156.2	156.5	−0.294	−0.211	38 10 36.90	−2.52	38 10 34.38	I.	Good seeing.
	159.3	154.3							
	159.4	156.2	−0.125						Good seeing.
	158.1	159.3							
40 Cygni	159.5	154.1	−0.181	−0.204	38 3 25.34	−2.29	38 3 23.05	I.	Good seeing.
	155.0	157.5							
	159.2	159.2	−0.225						Good seeing.
	161.0	157.4							
r Cygni	156.2	156.6	−0.050	−0.125	37 32 48.21	−1.90	37 32 46.31	I.	Good seeing.
	157.0	155.8							
	161.6	158.0	−0.200						Good seeing.
	160.0	160.4							
22 Cygni	138.5	143.7	+0.675	+0.668	38 10 37.52	−2.83	38 10 34.69	B.	Tolerable seeing.
	139.4	145.0							
	144.0	149.2	+0.644						Tolerable seeing.
	144.4	149.5							
22 Cygni	152.0	152.0	+0.025	−0.227	38 10 37.69	−3.69	38 10 34.00	I.	
	152.0	152.4							
	155.2	152.0	−0.475						
	156.0	152.0							
40 Cygni	152.0	152.4	−0.125	−0.377	38 3 27.15	−3.43	38 3 23.72	I.	
	153.0	150.6							
	158.8	152.0	−0.625						Star faded out.
	157.6	154.4							
17 H. Canum Venaticorum.	128.0	140.0	+0.713	+0.676	+37 46 55.52	−0.30	+37 46 55.22	B.	Difficult seeing; light clouds; daylight.
	136.0	135.4							
	151.3	151.8	+0.625						Good seeing.
	147.3	156.8							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
June 11	E.	N.	18	....	....	....	57 13.5	57 30.4	57 49.0	58 9.0	58 27.9	58 37.5	58 46.9	....	....
		S.	19	....	....	....	2 14.4	1 54.4	1 32.9	1 12.8	0 53.4	0 43.6	0 32.9	....	....
	W.	S.	20	....	....	....	40 29.5	40 49.8	41 9.3	41 30.4	41 50.4	42 0.5	42 10.6	....	....
		N.	20	....	....	....	45 31.9	45 12.5	44 53.4	44 35.6	44 14.6	44 5.7	43 56.4	....	....
11	E.	S.	19	....	24 17.9	24 36.4	24 54.4	25 11.3	25 29.3	25 47.0	26 4.5	....	....	....	....
		N.	19	....	30 0.8	29 38.9	29 20.2	29 3.0	28 43.0	28 24.5	28 6.1	....	....	....	....
	W.	N.	21	....	15 49.4	16 10.4	16 29.5	16 46.5	17 6.2	17 25.1	17 43.8	....	....	....	....
		S.	21	....	21 31.0	21 13.4	20 56.0	20 38.5	20 19.9	20 1.9	19 43.0	....	....	....	....
14	E.	S.	19	....	24 17.5	24 35.8	24 53.0	25 9.7	25 28.0	25 46.4	26 3.8	26 12.4	....	....	....
		N.	19	....	29 57.9	29 38.0	29 20.4	29 1.6	28 43.3	28 25.9	28 6.7	27 57.7	....	....	....
	W.	N.	21	....	15 47.5	16 8.6	16 29.0	16 46.5	17 4.1	17 21.7	17 40.6	17 49.7	....	....	....
		S.	21	....	21 30.8	21 10.5	20 53.0	20 36.0	20 17.3	20 0.8	19 41.7	19 32.9	....	....	....
14	E.	N.	19	....	....	57 2.5	57 17.0	....	57 43.5	57 57.4	58 10.7	58 18.0	58 24.6	....	....
		S.	20	....	....	1 10.5	0 55.0	....	0 26.0	0 11.7	59 57.6	59 49.3	59 42.6	....	....
	W.	S.	22	....	....	18 22.4	18 38.1	....	19 7.6	19 21.0	19 36.0	19 42.6	19 49.3	....	....
		N.	22	....	....	22 31.2	22 16.0	....	21 48.7	21 34.0	21 19.4	21 13.0	21 7.3	....	....
21	E.	N.	19	....	24 7.3	24 24.4	24 42.6	25 0.4	25 16.5	25 34.7	....	....	....	....	....
		S.	19	....	29 57.8	29 39.3	29 19.6	29 0.6	28 42.0	28 23.0	....	....	....	....	....
	W.	S.	21	....	15 35.0	15 53.0	16 12.0	16 31.4	16 49.6	17 9.7	....	....	....	....	....
		N.	21	....	21 25.0	21 8.8	20 51.4	20 34.4	20 17.4	19 58.7	....	....	....	....	....
22	E.	S.	14	....	....	....	....	....	....	6 27.5	7 17.5	7 42.8	8 11.0	8 38.9	....
		N.	14	....	....	....	....	....	....	15 34.0	14 9.7	13 30.2	12 54.0	12 21.4	....
	W.	N.	14	....	....	....	....	....	....	38 9.0	39 33.4	40 10.8	40 48.7	41 24.4	....
		S.	14	....	....	....	....	....	....	47 18.9	46 27.4	46 4.1	45 36.5	45 5.9	....
23	E.	S.	14	....	....	....	....	....	....	6 26.6	7 14.4	7 40.6	8 7.5	8 36.3	....
		N.	14	....	....	....	....	....	....	15 31.0	14 7.5	13 30.0	12 53.4	12 19.0	....
	W.	N.	14	....	....	....	....	....	....	38 11.2	39 33.0	40 12.4	40 49.9	41 24.8	....
		S.	14	....	....	....	....	....	....	47 18.4	46 30.2	46 4.3	45 38.7	45 11.6	....
27	E.	S.	15 10 18.6	....	10 48.0	11 3.2	11 17.5	11 31.6	11 46.4	12 1.9	12 16.4	....	....	....	....
		N.	15 15 59.9	....	15 27.6	15 11.0	14 56.7	14 41.5	14 26.0	14 11.1	13 56.5	....	....	....	....
	W.	N.	17 25 25.4	....	25 58.3	26 13.9	26 30.0	26 44.8	26 59.9	27 16.4	27 31.5	....	....	....	....
		S.	17 31 9.9	....	30 39.0	30 24.0	30 9.8	29 55.7	29 41.0	29 24.7	29 10.4	....	....	....	....
27	E.	S.	15 43 20.1	43 31.5	43 43.1	43 55.9	44 7.5	44 18.7	44 31.0	44 42.6	....	....	....	....	....
		N.	15 47 52.9	47 40.5	47 27.9	47 14.5	47 2.0	46 50.7	46 37.8	46 26.1	....	....	....	....	....
	W.	N.	18 33 2.3	33 14.7	33 27.4	33 40.4	33 52.3	34 4.0	34 16.4	34 28.8	....	....	....	....	....
		S.	18 37 35.4	37 23.3	37 11.4	36 59.4	36 46.8	36 35.5	36 24.0	36 12.0	....	....	....	....	....
27	E.	N.	15	....	....	....	57 23.0	57 36.4	57 48.9	58 2.9	58 17.0	....	....	....	....
		S.	16	....	....	....	0 53.5	0 39.5	0 25.7	0 11.4	59 58.2	....	....	....	....
	W.	S.	18	....	....	....	25 21.5	25 35.8	25 49.1	26 3.6	26 17.3	....	....	....	....
		N.	18	....	....	....	28 51.9	28 38.4	28 25.5	28 11.3	27 58.3	....	....	....	....
27	E.	N.	16	....	....	....	32 28.7	32 42.6	32 54.4	33 7.9	33 20.8	33 27.0	33 32.9	....	....
		S.	16	....	....	....	35 50.4	35 37.0	35 24.2	35 10.6	34 56.7	34 50.9	34 44.8	....	....
	W.	S.	19	....	....	....	7 37.8	7 51.5	8 4.5	8 17.6	8 30.2	8 36.8	8 43.8	....	....
		N.	19	....	....	....	10 57.9	10 44.9	10 32.7	10 19.4	10 6.4	10 0.4	9 54.6	....	....
29	E.	S.	17	....	....	....	59 55.0	0 26.0	0 59.3	1 32.6	2 3.9	....	....	2 54.4	3 11.4
		N.	18	....	....	....	8 42.8	8 2.0	7 20.0	6 40.4	6 2.4	....	....	5 8.1	4 51.2
	W.	N.	18	....	....	....	56 3.7	56 46.0	57 27.6	58 8.4	58 47.3	....	....	59 43.4	0 2.1
		S.	19	....	....	....	4 55.7	4 23.8	3 52.0	3 19.5	2 46.8	....	....	1 56.9	1 39.3
29	E.	S.	19 56 13.6	56 28.0	56 42.0	56 58.7	57 12.4	57 25.0	57 40.0	57 53.3	58 8.2	....	....	....	....
		N.	20 1 43.0	1 27.3	1 12.0	0 55.5	0 41.8	0 27.3	0 12.4	59 58.0	59 43.2	....	....	....	....
	W.	N.	22 17 28.6	17 42.9	17 58.7	18 14.2	18 30.0	18 43.0	18 58.0	19 12.5	19 27.8	....	....	....	....
		S.	22 22 57.4	22 42.8	22 28.3	22 13.3	21 58.9	21 46.2	21 31.5	21 16.5	21 3.2	....	....	....	....
29	E.	S.	20 48 2.2	....	48 28.0	48 40.4	48 54.0	49 6.0	49 18.6	49 31.4	49 43.1	....	....	....	....
		N.	20 52 52.4	....	52 25.3	52 11.6	51 58.1	51 46.4	51 33.5	51 20.4	51 7.0	....	....	....	....
	W.	N.	23 27 48.7	....	28 16.0	28 30.0	28 42.4	28 55.3	29 8.6	29 21.3	29 34.1	....	....	....	....
		S.	23 32 39.0	....	32 14.1	32 0.4	31 47.1	31 35.8	31 22.7	31 10.4	30 57.9	....	....	....	....
29	E.	N.	21	....	48 36.6	48 58.9	49 21.7	49 44.3	50 9.5	50 31.5	50 55.5	51 7.0	51 19.2	....	....
		S.	21	....	56 36.9	56 10.4	55 42.6	55 17.0	54 49.5	54 25.2	53 57.9	53 46.0	53 34.4	....	....
	W.	S.	23	....	10 22.4	10 45.1	11 13.4	11 41.0	12 6.0	12 33.4	13 0.5	13 11.4	13 25.7	....	....
		N.	23	....	18 22.2	17 59.8	17 38.6	17 12.5	16 50.0	16 26.4	16 2.2	15 51.1	15 37.3	....	....
July 1	E.	N.	15 10 10.9	10 27.5	10 40.1	10 54.9	11 9.4	11 24.0	11 39.2	11 53.1	12 8.0	....	....	....	....
		S.	15 16 3.9	15 48.4	15 32.1	15 16.6	15 1.2	14 46.8	14 31.0	14 16.1	13 59.9	....	....	....	....
	W.	S.	17 25 16.7	25 34.0	25 49.4	26 5.3	26 19.0	26 36.4	26 51.3	27 5.0	27 22.8	....	....	....	....
		N.	17 31 9.0	30 54.6	30 39.8	30 25.7	30 11.3	29 55.7	29 42.0	29 26.3	29 12.6	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
22 Cygni	167.1	171.7	+0.169	+0.178	+38 10 38.82	−4.46	+38 10 34.36	B.	Fair seeing.
	171.2	169.3							
	175.2	175.4	+0.188						Tolerable seeing.
	174.4	177.2							
40 Cygni	172.0	171.0	+0.125	+0.233	38 3 27.40	−4.17	38 3 23.23	B.	Fair seeing.
	170.1	173.1							
	175.4	180.1	+0.344						Fair seeing.
	178.3	179.1							
40 Cygni	191.1	192.2	+0.488	+0.602	38 3 29.05	−4.98	38 3 24.07	B.	Tolerable seeing.
	190.4	197.1							
	198.6	204.8	+0.738						Tolerable seeing.
	199.8	205.4							
τ Cygni	191.8	199.0	+0.650	+0.747	37 32 51.09	−4.37	37 32 46.72	B.	Tolerable seeing.
	195.0	198.2							
	201.3	208.0	+0.881						Very unsteady at times.
	202.0	209.4							
40 Cygni	147.5	160.0	+0.581	+0.485	38 3 30.42	−7.23	38 3 23.19	B.	Fair seeing; clouds.
	159.4	156.2							
	172.5	172.0	+0.388						Very fair seeing.
	170.3	177.0							
γ Bootis	147.8	149.5	+1.069	+1.085	38 49 17.96	−4.02	38 49 13.94	B.	Good seeing.
	142.3	157.7							
	144.1	158.8	+1.069						Good seeing.
	151.7	154.1							
γ Bootis	128.6	140.6	+1.431	+1.692	38 49 17.60	−4.16	38 49 13.44	B.	Very good seeing.
	133.1	144.0							
	140.1	158.0	+1.894						Very good seeing.
	147.9	160.3							
25 Herculis	178.9	181.2	+0.613	+0.629	37 39 47.19	−8.00	37 39 39.19	B.	Fair seeing.
	176.5	184.0							
	183.9	191.0	+0.662						Light clouds.
	185.9	189.4							
π Herculis	180.5	183.8	+0.750	+0.707	36 56 38.62	−8.94	36 56 29.68	B.	Good seeing.
	179.0	187.7							
	184.6	192.0	+0.694						Light clouds; quite faint at times.
	186.8	190.5							
e Herculis	179.2	188.0	+0.581	+0.602	37 25 1.55	−9.02	37 24 52.53	B.	Good seeing.
	183.6	184.1							
	187.1	190.0	+0.644						Clouds.
	184.6	192.0							
θ Herculis	180.0	188.4	+0.688	+0.657	37 16 8.61	−9.51	37 15 59.10	B.	Good seeing.
	183.7	186.3							
	187.4	191.0	+0.650						Fair seeing; light clouds.
	185.6	192.4							
α Lyræ	125.0	126.1	+0.606	+0.554	38 40 41.95	−10.42	38 40 31.53	B.	3-inch aperture; image diffuse; seeing good.
	124.3	132.9							
	132.0	138.5	+0.475						3-inch aperture; image diffuse; seeing good.
	136.1	137.2							
τ Cygni	140.8	139.1	+0.219	+0.249	37 32 55.24	−8.72	37 32 46.52	I.	Good seeing.
	137.8	143.0							
	143.6	148.0	+0.275						Good seeing.
	146.0	146.0							
1 Lacertæ	143.2	141.2	+0.275	+0.226	37 10 5.41	−7.08	37 9 58.33	I.	Good seeing.
	140.0	146.4							
	146.0	148.8	+0.175						Good seeing.
	148.4	148.4							
10 Lacertæ	140.8	147.2	+0.275	+0.238	38 26 34.84	5.99	38 26 28.85	I.	Good seeing.
	146.0	144.0							
	148.0	148.0	+0.194						Good seeing.
	145.9	149.0							
25 Herculis	136.0	139.2	+0.163	+0.291	+37 39 49.38	−9.08	+37 39 40.30	I.	Fair seeing.
	138.3	137.7							
	143.6	144.0	+0.413						Fair seeing.
	141.1	147.3							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
July 1	E.	S.	15	....	....	43 54.5	44 5.1	44 16.6	44 29.0	44 41.0	44 53.1	....	....	....	....
		N.	15	....	....	47 12.5	47 0.1	46 48.9	46 36.0	46 23.4	46 11.9	....	....	....	....
	W.	N.	18	....	....	33 38.1	33 49.0	34 1.3	34 13.5	34 25.9	34 38.7	....	....	....	....
		S.	18	....	....	36 55.7	36 44.2	36 32.4	36 21.6	36 9.3	35 57.6	....	....	....	....
1	E.	N.	15 56 27.4	56 41.3	56 54.8	57 8.3	57 21.9	57 35.5	57 47.8	58 0.8	58 16.4	... ...	....	....	....
		S.	16 1 48.1	1 33.6	1 19.2	1 5.5	0 51.3	0 37.5	0 23.4	0 9.5	59 55.9	....	....	....	....
	W.	S.	18 24 21.5	24 36.4	24 51.0	25 4.4	25 17.5	25 33.2	25 45.7	26 0.0	26 14.6	....	....	....	....
		N.	18 29 42.3	29 29.3	29 14.7	29 2.4	28 48.8	28 35.5	28 21.7	28 6.2	27 54.7	....	....	....	....
2	E.	S.	15	10 29.7	10 44.9	11 0.4	11 15.4	11 28.4	11 44.2	11 58.9	12 13.1	....	....	....	....
		N.	15	15 41.0	15 25.3	15 9.1	14 53.6	14 38.4	14 22.8	14 7.3	13 51.7	....	....	....	....
	W.	N.	17	25 37.8	25 53.9	26 10.0	26 24.9	26 40.0	26 56.3	27 11.5	27 26.7	....	....	....	....
		S.	17	30 49.5	30 35.0	30 19.3	30 5.4	29 51.0	29 35.5	29 20.7	29 6.3	....	....	....	....
2	E.	N.	15 43 13.8	43 24.9	43 37.0	43 48.8	44 0.7	44 12.6	44 24.0	44 35.1	....	....	....	....	....
		S.	15 47 52.9	47 39.4	47 28.0	47 16.7	47 4.0	46 51.8	46 39.9	46 27.9	....	....	....	....	....
	W.	S.	18 32 55.9	33 8.0	33 19.9	33 32.4	33 44.2	33 56.4	34 7.8	34 20.4	....	....	....	....	....
		N.	18 37 34.8	37 22.3	37 10.8	36 59.4	36 47.5	36 35.9	36 24.6	36 12.4	....	....	....	....	....
2	E.	S.	17	....	....	....	59 54.8	0 25.3	0 57.5	1 30.9	2 2.9	2 20.3	2 36.4	2 54.4	3 10.7
		N.	18	....	....	....	8 40.7	8 1.4	7 17.8	6 37.9	6 1.0	5 42.8	5 23.0	5 3.9	4 46.0
	W.	N.	18	....	....	....	56 5.4	56 43.4	57 24.8	58 5.9	58 44.5	59 3.9	59 23.4	59 40.4	0 0.2
		S.	19	....	....	....	4 52.2	4 21.8	3 48.6	3 16.7	2 44.1	2 28.0	2 11.4	1 53.0	1 37.2
2	E.	S.	20 28 50.6	29 8.6	29 25.1	29 44.0	30 1.3	30 16.1	30 34.3	30 52.3	31 9.1	... ...	....	....	....
		N.	20 35 34.8	35 15.6	34 56.6	34 36.6	34 19.5	34 2.0	33 42.0	33 24.2	33 6.0	....	....	....	....
	W.	N.	22 23 17.0	23 35.5	23 55.0	24 15.4	24 32.8	24 51.1	25 10.3	25 27.6	25 45.6	....	....	....	....
		S.	22 30 2.6	29 43.9	29 27.2	29 9.5	28 51.6	28 35.8	28 17.8	28 0.3	27 43.1	....	....	....	....
2	E.	N.	20 47 57.4	48 9.9	48 21.7	48 33.8	48 46.6	48 59.0	49 11.4	49 24.4	49 36.6	....	....	....	....
		S.	20 52 52.8	52 40.3	52 26.7	52 15.0	52 1.6	51 49.1	51 36.5	51 23.0	51 10.5	....	....	....	....
	W.	S.	23 27 43.5	27 56.6	28 10.3	28 22.6	28 35.6	28 48.6	29 0.4	29 13.6	29 26.8	....	....	....	....
		N.	23 32 39.5	32 27.1	32 14.0	32 2.5	31 50.3	31 37.6	31 25.6	31 13.3	31 0.2	....	....	....	....
2	E.	S.	21	....	48 41.9	49 6.0	49 28.9	49 51.6	50 14.6	....	51 3.0	51 15.0	....	....	....
		N.	21	....	56 26.8	55 58.3	55 31.0	55 6.4	54 38.9	....	53 46.8	53 35.0	....	....	....
	W.	N.	23	....	10 25.4	10 54.4	11 23.0	11 47.0	12 13.3	....	13 6.0	13 19.2	....	....	....
		S.	23	....	18 12.5	17 47.0	17 24.4	17 3.1	16 37.7	....	15 50.5	15 39.8	....	....	....
3	E.	S.	15 10 13.8	10 29.0	10 43.9	10 59.1	11 13.9	11 27.4	11 43.1	11 58.1	12 12.5	....	....	....	....
		N.	15 15 56.6	15 40.5	15 24.7	15 7.7	14 51.9	14 37.9	14 21.9	14 6.9	13 51.4	....	....	....	....
	W.	N.	17 25 21.3	25 37.7	25 54.0	26 10.6	26 26.0	26 40.1	26 56.8	27 11.1	27 26.7	....	....	....	....
		S.	17 31 4.0	30 49.9	30 34.3	30 19.0	30 4.7	29 51.3	29 35.8	29 21.0	29 5.7	....	....	....	....
3	E.	N.	15 43 12.9	43 24.9	43 36.2	43 47.9	43 59.7	44 11.4	44 23.0	44 34.5	44 46.5	....	....	....	....
		S.	15 47 52.1	47 39.4	47 27.3	47 15.3	47 3.3	46 51.0	46 39.1	46 27.4	46 14.4	....	....	....	....
	W.	S.	18 32 55.1	33 7.7	33 19.8	33 31.9	33 43.8	33 55.8	34 7.5	34 19.5	34 32.0	....	....	....	....
		N.	18 37 34.1	37 21.8	37 10.3	36 58.8	36 47.6	36 35.4	36 24.1	36 12.0	35 59.6	....	....	....	....
3	E.	S.	15 56 29.1	56 42.5	56 57.1	57 11.4	57 25.0	57 37.6	57 51.5	58 5.0	58 19.0	....	....	....	....
		N.	16 1 42.0	1 27.6	1 13.0	0 57.9	0 44.3	0 31.0	0 16.5	0 3.0	59 48.8	....	....	....	....
	W.	N.	18 24 24.8	24 39.2	24 53.0	25 8.5	25 23.0	25 35.4	25 49.6	26 4.0	26 18.6	....	....	....	....
		S.	18 29 37.6	29 24.0	29 11.1	28 56.1	28 42.3	28 30.0	28 15.6	28 2.5	27 48.7	....	....	....	....
3	E.	S.	17 57 50.8	58 19.7	58 51.0	59 24.6	59 56.3	0 24.4	0 57.6	1 29.7	2 3.5	2 19.4	2 36.2	2 54.3	3 12.0
		N.	18 11 51.2	11 1.0	10 14.6	9 25.5	8 41.5	8 3.3	7 18.8	6 38.2	6 1.6	5 42.5	5 23.3	5 4.5	4 47.6
	W.	N.	18 52 56.0	53 45.6	54 31.8	55 20.7	56 3.7	56 43.1	57 26.4	58 7.2	58 46.0	59 2.9	59 22.6	59 42.3	0 0.8
		S.	19 6 57.7	6 26.4	5 56.1	5 24.5	4 52.0	4 22.0	3 49.0	3 16.6	2 44.0	2 28.1	2 10.1	1 53.5	1 35.6
4	E.	S.	15 10 13.7	10 28.0	10 42.4	10 57.2	11 12.4	11 26.9	11 41.7	11 57.1	12 11.4	....	....	....	....
		N.	15 15 57.3	15 40.0	15 25.0	15 8.1	14 52.3	14 38.3	14 22.9	14 7.3	13 51.6	....	....	....	....
	W.	N.	17 25 19.4	25 35.4	25 51.4	26 7.4	26 23.3	26 38.3	26 53.4	27 8.0	27 24.5	....	....	....	....
		S.	17 31 2.7	30 47.9	30 33.3	30 17.8	30 1.9	29 49.5	29 34.4	29 19.4	29 4.0	....	....	....	....
4	E.	N.	15	43 24.4	43 36.6	43 48.0	44 0.0	44 11.4	44 23.0	44 34.9	44 46.7	....	....	....	....
		S.	15	47 39.0	47 26.4	47 14.4	47 2.1	46 50.3	46 38.4	46 25.9	46 13.6	....	....	....	....
	W.	S.	18	33 6.5	33 19.1	33 30.6	33 43.0	33 55.0	34 6.4	34 18.4	34 30.8	....	....	....	....
		N.	18	37 20.0	37 8.5	36 57.4	36 45.5	36 33.8	36 22.6	36 10.3	35 58.0	....	....	....	....
4	E.	S.	15 56 28.3	56 42.4	56 56.3	57 10.6	57 24.0	57 36.1	57 49.4	58 2.7	58 16.8	....	....	....	....
		N.	16 1 42.0	1 27.7	1 12.9	0 58.2	0 43.5	0 30.5	0 15.8	0 1.4	59 47.8	....	....	....	....
	W.	N.	18 24 22.5	24 37.5	24 52.0	25 6.5	25 20.1	25 33.6	25 48.2	26 2.0	26 16.1	....	....	....	....
		S.	18 29 36.7	29 22.4	29 8.9	28 54.7	28 41.1	28 28.6	28 14.8	28 0.8	27 47.5	....	....	....	....
4	E.	N.	17	....	....	59 11.0	59 42.3	0 14.4	0 45.8	1 17.9	1 50.8	2 7.4	2 23.5	2 40.6	2 59.0
		S.	18	....	....	9 40.8	8 56.0	8 14.0	7 33.1	6 52.9	6 15.5	5 57.4	5 37.5	5 19.0	5 0.2
	W.	S.	18	....	....	55 1.0	55 44.8	56 28.0	57 8.5	57 49.9	58 27.8	58 47.7	59 6.8	59 25.5	59 45.4
		N.	19	....	....	5 32.1	5 0.6	4 29.9	3 57.6	3 27.3	2 52.8	2 36.6	2 18.7	2 1.3	1 44.6

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN. DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
π Herculis.....	138.4	137.6	+0.475	+0.490	+36 56 39.33	−10.15	+36 56 29.18	I.	Fair seeing.
	133.6	142.0							
	144.4	151.2	+0.503						Fair seeing.
	148.0	149.6							
e Herculis.....	134.0	142.0	+0.500	+0.459	37 25 3.33	−10.24	37 24 53.09	I.	Good seeing.
	139.6	139.6							
	147.2	147.2	+0.413						Good seeing.
	144.5	151.1							
25 Herculis.....	101.4	107.7	+1.138	+1.269	37 39 49.44	− 9.33	37 39 40.11	B.	Good seeing.
	99.0	110.9							
	156.0	172.1	+1.369						Fair seeing.
	162.6	168.4							
π Herculis.....	98.7	111.9	+1.150	+1.165	36 56 40.29	−10.43	36 56 29.86	B.	Good seeing.
	102.9	108.1							
	166.0	171.9	+1.169						Good seeing.
	163.2	176.0							
α Lyræ........	164.5	168.5	+1.119	+1.154	38 40 42.90	−11.45	38 40 31.45	B.	1¼-inch aperture; fair image.
	161.0	174.9							
	163.7	176.7	+1.181						1¼-inch aperture; good image; little unsteady.
	168.0	173.9							
72 Cygni	171.2	175.2	+0.875	+0.920	38 0 44.81	− 9.12	38 0 35.69	I.	
	167.6	177.6							
	172.3	182.3	+0.975						
	174.8	180.4							
1 Lacertæ.....	167.6	177.9	+0.894	+0.885	37 10 6.46	− 8.03	37 9 58.43	I.	
	170.8	174.8							
	177.2	180.8	+0.900						
	173.6	184.4							
10 Lacertæ.....	174.4	176.8	+0.713	+0.829	38 26 36.16	− 6.89	38 26 29.27	I.	
	171.8	180.8							
	172.8	183.2	+0.950						
	176.4	181.2							
25 Herculis.....	145.9	150.0	+1.413	+1.372	37 39 48.54	− 9.55	37 39 38.99	I.	
	141.5	160.0							
	151.6	169.6	+1.325						
	160.0	163.2							
π Herculis.....	142.3	162.0	+1.481	+1.319	36 56 40.02	−10.69	36 56 29.33	I.	
	152.0	156.0							
	164.4	167.2	+1.175						
	158.8	174.8							
e Herculis.....	152.0	156.4	+1.575	+1.447	37 25 3.18	−10.79	37 24 52.39	I.	
	144.4	165.2							
	156.0	174.4	+1.325						
	164.4	167.2							
α Lyræ........	162.5	162.7	+1.150	+1.168	38 40 43.02	−11.77	38 40 31.25	I.	
	155.6	173.8							
	159.6	176.0	+1.175						
	168.0	170.4							
25 Herculis.....	156.0	157.4	+0.888	+1.005	37 39 50.12	− 9.75	37 39 40.37	B.	Fair seeing.
	151.3	164.1							
	159.1	172.9	+1.125						Good seeing.
	164.5	168.7							
π Herculis.....	151.9	165.7	+1.094	+1.127	36 56 41.19	−10.93	36 56 30.26	B.	Good seeing.
	156.9	160.6							
	167.9	173.2	+1.181						Light clouds; faint at times; quite steady.
	164.0	177.6							
e Herculis.....	157.2	160.8	+1.050	+1.088	37 25 3.75	−11.03	37 24 52.72	B.	Good seeing.
	153.0	166.2							
	163.4	176.6	+1.138						Good seeing.
	168.0	173.0							
α Lyræ........	162.7	174.6	+1.000	+1.131	+38 40 44.10	−12.06	+38 40 32.04	B.	1¼-inch aperture; good seeing.
	167.9	172.0							
	168.0	175.5	+1.256						Full aperture; image pretty good· light clouds.
	166.9	179.5							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
July 6	E.	N.	20	....	29 16.5	29 32.8	29 50.0	30 7.2	30 24.0	30 42.0	30 59.3	31 8.0	....	....	....
		S.	20	....	34 58.1	34 41.0	34 21.4	34 3.6	33 45.6	33 26.9	33 9.4	33 0.0	....	....	....
	W.	S.	22	....	23 46.6	24 4.0	24 23.8	24 42.6	25 0.1	25 18.0	25 35.9	25 44.9	....	....	....
		N.	22	....	29 28.5	29 11.5	28 54.6	28 37.6	28 21.1	28 3.3	27 44.5	27 36.8	....	....	....
6	E.	S.	20 47 57.3	48 10.0	48 22.6	48 35.9	48 48.3	49 0.5	49 13.3	49 24.7	49 38.0	....	....	....	....
		N.	20 52 46.3	52 32.4	52 19.9	52 5.4	51 53.0	51 40.7	51 27.2	51 14.6	51 1.4	....	....	....	....
	W.	N.	23 27 42.4	27 55.9	28 9.4	28 23.4	28 36.4	28 48.0	29 2.2	29 14.9	29 27.9	....	....	....	....
		S.	23 32 33.0	32 20.4	32 7.5	31 54.2	31 41.9	31 30.5	31 17.0	31 4.5	30 52.5	....	....	....	....
6	E.	N.	21	....	48 32.7	48 53.6	49 17.4	49 40.1	50 3.0	50 26.9	50 51.0	51 2.1	51 14.1	....	....
		S.	21	....	56 32.5	56 4.5	55 37.2	55 11.0	54 46.3	54 19.0	53 51.7	53 40.2	53 29.0	....	....
	W.	S.	23	....	10 13.4	10 39.0	11 7.4	11 33.8	11 59.9	12 24.8	12 52.0	13 3.9	13 15.4	....	....
		N.	23	....	18 14.1	17 52.6	17 29.0	17 6.6	16 41.8	16 20.7	15 55.7	15 43.8	15 32.6	....	....
10	E.	N.	15 10 4.0	10 19.5	10 33.9	10 47.7	11 2.4	11 17.2	11 30.8	11 45.8	12 1.8	.. ....	....	....	....
		S.	15 15 55.2	15 38.3	15 23.9	15 8.5	14 53.6	14 38.0	14 22.9	14 7.4	13 51.5	....	....	....	....
	W.	S.	17 25 11.4	25 26.6	25 42.0	25 57.5	26 13.2	26 28.8	26 43.3	26 58.7	27 14.5	....	....	....	....
		N.	17 31 1.2	30 45.3	30 31.6	30 17.2	30 2.4	29 46.6	29 33.5	29 19.2	29 3.6	....	....	....	....
10	E.	S.	15 43 10.6	43 22.3	43 34.5	43 45.6	43 58.6	44 10.0	44 21.9	44 34.3	44 46.1	....	....	....	....
		N.	15 47 43.3	47 31.0	47 18.3	47 5.7	46 53.0	46 42.0	46 29.1	46 17.2	46 5.0	....	....	....	....
	W.	N.	18 32 51.2	33 4.1	33 16.4	33 28.5	33 41.1	33 52.8	34 5.2	34 17.5	34 29.7	....	....	....	....
		S.	18 37 24.0	37 12.9	37 1.0	36 49.3	36 36.8	36 25.3	36 13.1	36 1.1	35 49.5	....	....	....	....
10	E.	N.	15 56 20.7	56 34.3	56 48.1	57 1.3	57 14.6	57 27.6	57 40.5	57 54.5	....	....	....	....	....
		S.	16 1 40.3	1 26.5	1 12.1	0 58.3	0 44.7	0 30.4	0 17.3	0 3.0	....	....	....	....	....
	W.	S.	18 24 13.6	24 27.8	24 43.0	24 56.5	25 10.0	25 24.5	25 38.2	25 51.8	....	.. ...	....	....	....
		N.	18 29 33.3	29 19.5	29 6.4	28 53.6	28 40.3	28 26.7	28 13.7	28 0.0	....	....	....	....	....
10	E.	N.	17	....	....	....	59 39.2	0 10.0	0 41.0	1 14.3	1 47.4	2 4.8	2 20.5	2 38.4	....
		S.	18	....	....	....	8 54.8	8 10.0	7 33.6	6 51.7	6 11.0	5 58.0	5 35.1	5 14.4	....
	W.	S.	18	....	....	....	55 37.7	56 21.7	57 0.3	57 42.8	58 23.4	58 40.9	58 59.1	59 19.6	. ...
		N.	19	....	....	....	4 56.6	4 25.3	3 54.1	3 23.1	2 48.6	2 33.3	2 15.8	1 57.0	....
10	E.	N.	21	....	....	48 51.5	49 14.9	49 39.3	50 2.2	50 24.6	50 49.0	51 1.1	51 12.7	....	....
		S.	21	....	....	56 0.3	55 33.3	55 5.9	54 39.6	54 13.3	53 48.3	53 36.4	53 23.8	....	....
	W.	S.	23	....	....	10 38.3	11 3.5	11 29.1	11 54.8	12 22.0	12 47.3	12 58.9	13 12.4	....	....
		N.	23	....	....	17 47.3	17 24.4	16 59.5	16 38.1	16 13.7	15 50.4	15 39.0	15 27.4	....	....
12	E.	N.	21	....	....	48 50.0	....	....	49 59.1	50 23.2	50 47.3	50 59.0	51 11.0	....	....
		S.	21	....	....	56 3.4	....	....	54 42.7	54 17.0	53 50.0	53 38.0	53 25.0	....	....
	W.	S.	23	....	....	10 34.0	....	....	11 54.0	12 20.6	12 47.5	12 59.8	13 12.3	....	....
		N.	23	....	....	17 45.5	....	....	16 36.4	16 12.7	15 48.0	15 36.4	15 25.4	....	....
13	E.	N.	15 56 20.4	56 33.6	56 47.1	57 0.0	57 13.0	57 25.5	57 38.1	57 52.5	58 7.0	....	....	....	....
		S.	16 1 36.4	1 21.9	1 8.0	0 54.9	0 40.0	0 26.5	0 13.0	59 59.8	59 44.7	....	....	....	....
	W.	S.	18 24 11.8	24 24.9	24 39.4	24 54.2	25 7.5	25 22.2	25 35.5	25 49.0	26 2.6	....	....	....	....
		N.	18 29 30.3	29 17.1	29 3.4	28 50.7	28 37.3	28 23.3	28 10.4	27 57.5	27 44.0	....	....	....	....
13	E.	S.	17	....	....	....	59 48.3	0 18.6	0 49.2	1 24.1	1 57.4	2 12.9	2 29.6	2 46.4	3 3.2
		N.	18	....	....	....	8 38.9	7 58.1	7 15.3	6 34.9	5 57.3	5 39.6	5 19.6	5 1.5	4 44.5
	W.	N.	18	....	....	....	55 52.5	56 30.6	57 14.0	57 53.3	58 33.6	58 52.9	59 10.3	59 28.0	59 47.0
		S.	19	....	....	....	4 42.0	4 11.4	3 38.6	3 4.4	2 33.0	2 16.6	2 0.1	1 43.9	1 25.8
13	E.	S.	21	....	....	48 57.0	49 21.5	49 41.9	....	50 30.4	50 53.7	....	51 16.2	....	....
		N.	21	....	....	55 54.3	55 24.5	55 0.2	....	54 6.4	53 40.4	....	53 16.7	....	....
	W.	N.	23	....	....	10 42.9	11 12.3	11 36.4	....	12 30.8	12 55.9	....	13 19.0	....	....
		S.	23	....	....	17 38.9	17 14.0	16 52.0	....	16 4.1	15 39.0	....	15 17.0	....	....
13	E.	N.	22 45 55.6	46 21.3	46 49.0	47 13.4	47 41.3	48 9.8	48 36.7	49 5.5	49 33.4	49 46.4	50 2.6	50 18.5	50 33.3
		S.	22 57 53.2	57 15.0	56 41.0	56 8.0	55 28.7	54 54.2	54 21.9	53 50.5	53 16.0	53 1.5	52 47.6	52 30.2	52 13.6
	W.	S.	23 51 41.7	52 19.4	52 56.5	53 31.1	54 6.1	54 40.3	55 15.0	55 46.0	56 19.0	56 34.3	56 49.0	57 7.1	57 22.9
		N.	0 3 44.7	3 16.3	2 51.4	2 26.7	1 57.0	1 29.5	1 0.5	0 34.9	0 6.1	59 50.8	59 35.3	59 20.1	59 5.0
14	E.	N.	14	....	....	....	....	4 17.0	5 0.9	5 50.5	6 41.5	7 6.8	7 32.6	8 1.6	8 29.5
		S.	14	....	....	....	....	20 6.1	17 57.6	16 6.5	14 35.4	13 58.0	13 17.0	12 39.0	12 2.1
	W.	S.	14	....	....	....	....	33 12.0	35 18.0	37 4.6	38 38.0	39 15.5	39 56.0	40 36.0	41 11.2
		N.	14	....	....	....	....	48 54.0	48 10.9	47 22.1	46 29.0	46 5.5	45 39.9	45 12.9	44 41.3
14	E.	N.	15 10 2.7	10 17.4	10 31.3	10 45.9	11 0.4	11 14.9	11 28.9	11 43.9	11 58.7	....	....	....	....
		S.	15 15 52.3	15 36.1	15 20.8	15 5.3	14 49.7	14 34.8	14 19.6	14 4.5	13 48.9	....	....	....	....
	W.	S.	17 25 7.3	25 23.8	25 38.9	25 53.9	26 9.9	26 24.8	26 39.9	26 55.9	27 10.6	....	....	....	....
		N.	17 30 56.0	30 41.4	30 27.8	30 14.1	29 59.2	29 44.8	29 29.8	29 15.0	29 0.0	....	....	....	....
14	E.	S.	15 43 7.6	43 19.4	43 31.7	43 43.0	43 56.0	44 6.9	44 19.0	44 30.7	44 42.9	....	....	....	....
		N.	15 47 40.9	47 28.1	47 14.9	47 3.7	46 49.7	46 38.7	46 27.0	46 14.5	46 2.6	....	....	....	....
	W.	N.	18 32 48.0	32 59.9	33 12.3	33 24.1	33 38.0	33 50.0	34 2.5	34 13.8	34 25.8	....	....	....	....
		S.	18 37 20.9	37 8.4	36 57.0	36 44.8	36 32.5	36 21.3	36 9.2	35 57.9	35 45.7	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ' "	"	° ' "		
72 Cygni	161.6	182.0	+1.681	+1.579	+38 0 45.16	−10.38	+38 0 34.78	I.	
	173.2	179.7							
	186.5	195.0	+1.506						
	184.4	200.0							
1 Lacertæ	173.6	182.3	+1.738	+1.551	37 10 7.40	− 9.23	37 9 58.17	I.	
	171.4	190.5							
	187.2	201.6	+1.425						
	190.6	199.0							
10 Lacertæ	178.4	197.2	+1.756	+1.593	38 26 37.67	− 8.06	38 26 29.61	I.	
	184.7	194.0							
	190.0	197.6	+1.463						
	186.2	202.0							
25 Herculis.....	112.7	134.0	+1.856	+1.732	37 39 50.82	−10.92	37 39 39.90	I.	
	120.5	128.9							
	128.4	136.8	+1.550						
	127.2	143.6							
π Herculis.....	120.0	130.0	+1.775	+1.663	36 56 42.07	−12.29	36 56 29.78	I.	
	116.0	134.4							
	131.2	147.6	+1.525						
	136.0	144.0							
e Herculis.....	116.9	133.9	+1.556	+1.471	37 25 5.81	−12.41	37 24 53.40	I.	
	121.9	129.8							
	136.0	141.2	+1.350						
	131.2	147.6							
α Lyræ........	129.5	144.0	+1.344	+1.304	38 40 45.34	−13.69	38 40 31.65	I.	
	134.3	141.3							
	137.6	144.0	+1.213						Passing clouds.
	135.5	148.5							
10 Lacertæ	144.0	156.0	+1.175	+1.218	38 26 38.25	− 9.05	38 26 29.20	B.	Fair seeing.
	146.2	153.0							
	145.8	152.3	+1.231						Fair seeing.
	142.8	156.0							
10 Lacertæ	123.4	140.2	+1.219	+1.212	38 26 39.21	− 9.58	38 26 29.63	B.	Unsteady.
	131.6	134.2							
	134.8	137.8	+1.156						Fair seeing; light clouds.
	128.5	144.0							
e Herculis.....	121.8	128.7	+1.413	+1.337	37 25 5.79	−13.23	37 24 52.56	B.	Fair seeing.
	123.8	139.5							
	147.7	156.1	+1.238						Fair seeing.
	147.1	158.5							
α Lyræ........	147.7	154.2	+1.106	+1.194	38 40 45.82	−14.64	38 40 31.18	B.	1¼-inch aperture; fair seeing; little unsteady.
	145.7	156.9							
	145.5	157.6	+1.250						1¼-inch aperture; fair seeing; little unsteady.
	146.9	154.8							
10 Lacertæ	141.2	149.2	+1.125	+1.157	38 26 38.53	− 9.87	38 26 28.66	I.	Unsteady.
	139.6	149.6							
	143.5	150.0	+1.156						Unsteady.
	140.0	152.0							
14 Andromedæ .	141.6	150.0	+1.250	+1.295	38 35 43.96	− 7.44	38 35 36.52	I.	Tolerable seeing.
	140.4	152.0							
	139.2	151.6	+1.300						Tolerable seeing.
	141.6	150.0							
γ Bootis	106.8	116.0	+1.931	+1.997	38 49 20.84	− 6.99	38 49 13.85	I.	
	104.0	125.7							
	104.7	126.0	+1.931						
	115.3	124.9							
25 Herculis.....	117.4	129.0	+1.663	+1.769	37 39 51.89	−11.87	37 39 40.02	T.	Good seeing.
	117.8	132.8							
	128.0	142.0	+1.819						
	128.0	143.1							
π Herculis.....	118.1	133.8	+1.706	+1.603	+36 56 43.25	−13.38	+36 56 29.87	I.	Steady.
	121.6	133.2							
	133.2	143.6	+1.475						Steady.
	132.2	145.4							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
July 14	E.	N.	15 56 17.9	56 32.0	56 44.9	56 57.6	57 11.8	57 24.9	57 37.6	57 51.1	58 5.1	....	....	....	....
		S.	16 1 37.6	1 23.2	1 8.6	0 55.3	0 41.6	0 27.2	0 13.6	59 59.9	59 45.8	....	....	....	....
	W.	S.	18 24 10.3	24 24.6	24 38.7	24 52.3	25 6.9	25 20.9	25 34.5	25 48.5	26 2.6	....	....	....	....
		N.	18 29 30.0	29 16.3	29 2.4	28 50.7	28 36.7	28 23.1	28 9.9	27 57.4	27 43.3	....	....	....	....
16	E.	N.	15 43 1.2	43 13.3	43 25.2	43 36.1	43 48.5	43 59.9	44 11.3	44 23.4	44 35.5	....	....	....	....
		S.	45 47 41.6	47 29.2	47 16.4	47 4.8	46 52.0	46 40.9	46 29.4	46 17.2	46 4.4	....	....	....	....
	W.	S.	18 32 41.4	32 53.8	33 6.0	33 18.5	33 30.8	33 42.8	33 54.7	34 6.2	34 18.8	....	....	....	....
		N.	18 37 20.8	37 8.6	36 56.3	36 45.9	36 35.1	36 22.8	36 11.4	35 59.2	35 47.6	....	....	....	....
16	E.	S.	15	56 32.5	56 45.4	56 59.1	57 13.4	57 26.0	57 40.3	57 53.6	58 6.4	....	....	....	....
		N.	16	1 15.8	1 2.3	0 48.4	0 32.5	0 18.9	0 4.9	59 50.9	59 38.3	....	....	....	....
	W.	N.	18	24 25.2	24 39.3	24 53.7	25 8.6	25 22.0	25 36.0	25 50.4	26 4.0	....	....	....	....
		S.	18	29 10.4	28 56.6	28 43.2	28 29.4	28 15.8	28 2.5	27 48.5	27 35.3	....	....	....	....
16	E.	S.	17	....	....	....	59 44.8	0 15.6	0 48.5	....	1 54.6	2 11.5	2 27.8	2 44.8	3 2.6
		N.	18	....	....	....	8 34.6	7 53.4	7 9.8	....	5 53.0	5 34.3	5 15.6	4 55.7	4 36.9
	W.	N.	18	....	....	....	55 46.6	56 26.6	57 10.0	....	58 29.0	58 48.0	59 6.6	59 25.7	59 44.0
		S.	19	....	....	....	4 38.3	4 7.5	3 33.2	....	2 28.7	2 11.4	1 54.6	1 38.6	1 20.4
16	E.	S.	21	....	48 31.3	48 52.9	49 18.7	49 39.5	50 4.1	50 28.4	50 51.9	51 3.0	51 15.6	....	....
		N.	21	....	56 18.9	55 52.1	55 21.7	54 56.5	54 29.5	54 3.5	53 38.7	53 25.5	53 12.5	....	....
	W.	N.	23	....	10 9.0	10 37.5	11 6.4	11 31.3	11 59.4	12 24.0	12 50.5	13 1.4	13 13.5	....	....
		S.	23	....	17 57.5	17 34.5	17 9.6	16 48.1	16 23.3	15 59.1	15 35.5	15 23.9	15 12.5	....	....
16	E.	N.	22	....	....	....	47 37.8	48 5.7	48 33.2	49 1.7	49 30.8	49 44.4	....	....	50 30.5
		S.	22	....	....	....	55 27.5	54 53.6	54 20.3	53 47.2	53 13.5	52 58.7	....	....	52 10.8
	W.	S.	23	....	....	....	53 59.6	54 35.7	55 8.7	55 42.4	56 15.2	56 30.7	....	....	57 19.0
		N.	0	....	....	....	1 53.2	1 24.6	0 58.7	0 29.4	0 1.0	59 47.0	....	....	59 2.7
16	E.	N.	23	....	45 1.1	45 16.1	....	45 48.0	46 3.9	46 19.2	....	46 43.2	....	....	....
		S.	23	....	50 17.6	50 0.8	....	49 26.4	49 10.4	48 53.5	....	48 28.5	....	....	....
	W.	S.	1	....	48 40.3	48 56.0	....	49 30.7	49 47.0	50 4.0	....	50 29.3	....	....	....
		N.	1	....	53 57.9	53 42.2	....	53 10.1	52 54.8	52 38.3	....	52 14.9	....	....	....
17	E.	N.	15 9 58.2	10 12.2	10 26.5	10 40.6	10 55.1	11 10.0	11 24.1	11 39.5	11 54.0	12 1.4	....	....	....
		S.	15 15 49.2	15 33.0	15 17.5	15 2.8	14 47.8	14 31.9	14 17.5	14 2.1	13 46.5	13 39.6	....	....	....
	W.	S.	17 25 4.3	25 19.2	25 34.9	25 50.4	26 5.1	26 20.4	26 35.6	26 51.7	27 7.5	27 15.3	....	....	....
		N.	17 30 52.6	30 37.7	30 23.2	30 9.5	29 55.8	29 40.3	29 26.8	29 11.4	28 56.5	28 49.3	....	....	....
17	E.	S.	15 43 4.7	43 15.4	43 27.6	43 39.5	43 51.9	44 3.5	44 15.3	44 27.0	44 38.5	....	....	....	....
		N.	15 47 36.5	47 23.4	47 10.9	46 58.6	46 45.6	46 34.7	46 22.1	46 9.9	45 58.1	....	....	....	....
	W.	N.	18 32 43.5	32 55.4	33 8.6	33 21.8	33 33.4	33 44.7	33 57.9	34 9.5	34 21.5	....	....	....	....
		S.	18 37 18.0	37 5.1	36 53.3	36 41.1	36 29.0	36 17.7	36 5.4	35 53.6	35 41.4	....	....	....	....
17	E.	N.	15 56 14.6	56 27.6	56 41.0	56 53.4	57 6.9	57 20.5	57 33.6	57 46.5	58 0.8	58 7.9	....	....	....
		S.	16 1 34.9	1 19.9	1 5.5	0 51.2	0 38.2	0 23.8	0 10.0	59 56.2	59 41.6	59 35.9	....	....	....
	W.	S.	18 24 6.5	24 21.0	24 35.0	24 48.9	25 3.1	25 17.1	25 31.1	25 44.9	25 58.4	26 5.4	....	....	....
		N.	18 29 25.2	29 11.1	28 57.3	28 45.5	28 32.2	28 18.6	28 6.2	27 52.9	27 38.8	27 32.0	....	....	....
17	E.	N.	17	....	....	59 1.2	59 33.1	0 4.6	0 34.0	1 7.8	1 42.7	1 58.0	2 14.2	2 32.8	....
		S.	18	....	....	9 35.5	8 50.9	8 8.8	7 28.4	6 46.7	6 6.5	5 47.9	5 28.0	5 10.7	....
	W.	S.	18	....	....	54 47.7	55 29.4	56 13.8	56 54.6	57 33.7	58 15.1	58 33.0	58 51.9	59 14.3	....
		N.	19	....	....	5 17.5	4 48.5	4 15.9	3 44.5	3 11.4	2 38.4	2 22.5	2 5.7	1 46.1	....
17	E.	N.	21	....	....	....	49 7.2	49 31.6	49 54.7	50 19.2	50 43.4	50 55.3	51 6.5	....	....
		S.	21	....	....	....	55 29.5	55 2.5	54 35.4	54 9.4	53 42.7	53 30.9	53 17.9	....	....
	W.	S.	23	....	....	....	10 55.2	11 21.4	11 47.6	12 13.9	12 40.5	12 52.5	13 5.3	....	....
		N.	23	....	....	....	17 15.5	16 52.5	16 29.1	16 5.9	15 41.7	15 29.6	15 17.9	....	....
17	E.	S.	22	....	....	....	47 44.3	48 11.0	48 38.0	....	49 36.4	49 51.4	50 5.3	....	....
		N.	22	....	....	....	55 13.5	54 41.2	54 6.8	....	53 1.2	52 46.6	52 29.8	....	....
	W.	N.	23	....	....	....	54 9.9	54 43.8	55 19.6	....	56 25.6	56 40.5	56 56.0	....	....
		S.	0	....	....	....	1 39.6	1 13.7	0 44.8	....	59 47.7	59 33.8	59 20.1	....	....
18	E.	N.	15	10 14.0	10 28.4	10 42.8	10 57.2	11 11.8	11 26.1	....	....	....	....	....	....
		S.	15	15 33.4	15 17.6	15 2.0	14 47.4	14 31.0	14 16.9	....	....	....	....	....	....
	W.	S.	17	25 15.5	25 32.3	25 47.5	26 2.2	26 19.0	26 33.5	....	....	....	....	....	....
		N.	17	30 36.4	30 22.0	30 8.4	29 54.0	29 39.1	29 24.8	....	....	....	....	....	....
18	E.	N.	15	56 28.0	56 41.5	56 54.8	57 8.0	57 21.7	57 34.5	57 48.5	58 2.4	....	....	....	....
		S.	16	1 20.4	1 5.0	0 52.0	0 38.4	0 24.0	0 10.3	59 56.9	59 42.7	....	....	....	....
	W.	S.	18	24 17.8	24 33.0	24 45.9	25 0.6	25 14.9	25 28.7	25 42.9	25 56.5	....	....	....	....
		N.	18	29 10.3	28 57.6	28 44.2	28 31.3	28 17.1	28 4.0	27 51.4	27 36.6	....	....	....	....
18	E.	N.	18	....	....	....	....	0 6.0	0 41.4	1 11.0	1 43.8	2 1.0	2 18.0	2 35.7	2 53.5
		S.	18	....	....	....	....	8 10.0	7 30.4	6 47.0	6 9.9	5 52.1	5 32.5	5 12.6	4 54.6
	W.	S.	18	....	....	....	....	56 8.1	56 49.7	57 29.8	58 12.1	58 28.8	58 46.7	59 7.1	59 28.8
		N.	19	....	....	....	....	4 14.4	3 41.7	3 9.8	2 34.9	2 19.0	2 1.6	1 43.1	1 26.5

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
e Herculis.....	122.4	132.8	+1.569	+1.578	+37 25 6.34	−13.51	+37 24 52.83	I.	Steady.
	121.5	136.2							
	130.7	145.3	+1.550						Steady.
	133.3	143.5							
π Herculis.....	150.0	160.1	+2.144	+2.023	36 56 43.80	−13.88	36 56 29.92	B.	Good seeing.
	144.0	168.2							
	160.4	181.0	+1.938						Good seeing.
	166.6	177.0							
e Herculis.....	144.5	168.7	+2.256	+2.146	37 25 6.85	−14.02	37 24 52.83	B.	Good seeing.
	152.0	163.9							
	164.6	176.0	+2.056						Good seeing.
	160.0	181.5							
α Lyræ........	156.3	179.3	+2.050	+1.962	38 40 46.98	−15.60	38 40 31.38	B.	Good seeing.
	164.6	174.4							
	167.9	176.7	+1.863						Good seeing.
	162.6	183.6							
10 Lacertæ.....	106.4	120.5	+1.456	+1.618	38 26 40.56	−10.83	38 26 29.73	I.	Good seeing.
	111.9	121.1							
	117.0	126.2	+1.688						Good seeing.
	113.5	131.3							
14 Andromedæ .	113.9	126.1	+1.888	+1.935	38 35 45.24	− 8.30	38 35 36.94	I.	Good seeing.
	112.2	130.2							
	115.6	132.4	+1.875						Good seeing.
	117.6	130.8							
μ Andromedæ .	118.0	129.1	+1.694	+1.849	37 51 54.92	− 3.85	37 51 51.07	I.	Fair seeing.
	116.0	132.0							
	114.0	130.4	+1.925						Light fog; clouds.
	114.4	128.8							
25 Herculis.....	85.1	98.0	+2.756	+2.497	37 39 52.74	12.46	37 39 40.28	I.	Fair seeing.
	80.4	111.6							
	111.2	128.6	+2.094						Fair seeing.
	113.9	130.0							
π Herculis.....	87.5	114.1	+2.594	+2.401	36 56 43.86	14.11	36 56 29.75	I.	Good seeing.
	97.1	112.0							
	120.4	137.6	+2.125						Good seeing.
	121.6	138.4							
e Herculis.....	97.6	112.4	+2.356	+2.288	37 25 7.51	-14.24	37 24 53.27	I.	Good seeing.
	95.8	118.7							
	119.2	136.0	+2.125						Good seeing.
	120.4	137.6							
α Lyræ........	117.6	134.0	+2.050	+2.089	38 40 47.56	15.89	38 40 31.67	I.	Good seeing.
	119.1	135.5							
	123.1	139.5	+2.025						Good seeing.
	126.4	142.4							
10 Lacertæ.....	140.8	156.0	+2.000	+2.043	38 26 40.79	−11.16	38 26 29.63	B.	Good seeing.
	139.2	156.0							
	132.4	151.8	+2.025						Good seeing.
	135.4	148.4							
14 Andromedæ .	134.6	152.0	+1.856	+1.924	38 35 44.95	- 8.60	38 35 36.35	B.	Fair seeing.
	136.1	148.4							
	135.6	147.2	+1.925						Tolerable seeing; light clouds.
	132.0	151.2							
25 Herculis.....	123.6	116.0	0.500	−0.756	37 39 52.66	−12.61	37 39 40.05	B.	Fair seeing; light clouds.
	121.5	121.1							
	138.9	132.1	−0.988						Poor seeing; bad image; bright moonlight.
	140.7	131.7							
e Herculis.....	135.7	124.4	−1.106	−1.043	37 25 7.13	−14.44	37 24 52.69	B.	Fair seeing.
	134.2	127.8							
	141.9	135.7	0.956						Bad seeing.
	144.0	134.9							
α Lyræ........	143.1	131.9	-0.950	−1.052	+38 40 47.53	−16.16	+38 40 31.37	B.	1¼-inch-aperture; bad image; unsteady; clouds.
	140.0	136.0							
	143.9	137.2	-1.113						1¼-inch-aperture; very bad image; unsteady.
	146.9	135.8							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
July 21	E.	N.	14	....	....	....	....	4 16.2	5 1.0	5 49.2	6 40.5	7 6.4	7 30.7	8 0.9	8 30.4
		S.	14	....	....	....	....	20 11.5	18 1.4	16 11.0	14 37.5	13 57.6	13 19.9	12 41.0	12 4.9
	W.	S.	14	....	....	....	....	32 49.1	35 5.5	36 51.5	38 25.7	39 4.4	39 43.9	40 23.5	41 1.5
		N.	14	....	....	....	....	48 47.0	48 0.0	47 12.4	46 21.3	45 56.3	45 29.6	45 1.1	44 32.6
21	E.	N.	15 9 57.6	10 12.4	10 27.3	10 40.9	10 55.0	11 10.4	11 24.6	11 39.5	....	....	....	....	....
		S.	15 15 48.7	15 33.0	15 17.1	15 2.7	14 47.1	14 31.5	14 16.5	14 1.5	....	....	....	....	....
	W.	S.	17 25 0.4	25 15.9	25 31.2	25 46.2	26 1.7	26 17.7	26 32.0	26 47.3	....	....	....	....	....
		N.	17 30 49.4	30 35.5	30 20.6	30 7.0	29 52.3	29 37.0	29 23.7	29 8.2	....	....	....	....	....
21	E.	N.	15 56 13.9	56 27.8	....	....	57 7.4	57 21.6	57 34.3	57 48.3	58 1.9	....	....	....	....
		S.	16 1 33.8	1 19.9	....	....	0 38.0	0 22.4	0 10.0	59 55.6	59 41.2	....	....	....	....
	W.	S.	18 24 3.7	24 18.6	....	....	24 59.7	25 14.4	25 27.6	25 41.3	25 49.0	....	....	....	....
		N.	18 29 23.5	29 8.0	....	....	28 29.9	28 15.9	28 3.1	27 50.1	27 41.8	....	....	....	....
21	E.	N.	18	....	....	....	....	0 6.9	0 39.0	1 11.0	1 46.0	1 59.1	2 16.6	2 36.2	2 55.1
		S.	18	....	....	....	....	8 10.9	7 30.4	6 48.5	6 8.0	5 50.5	5 32.3	5 12.1	4 50.5
	W.	S.	18	....	....	....	....	56 4.4	56 47.0	57 27.6	58 7.7	58 27.0	58 45.0	59 5.7	59 25.0
		N.	19	....	....	....	....	4 10.3	3 40.9	3 8.4	2 33.1	2 16.4	2 0.1	1 41.9	1 22.9
22	E.	N.	21	....	48 20.9	48 43.3	49 5.9	49 28.6	49 53.0	50 15.8	....	....	....	....	....
		S.	21	....	56 25.9	55 59.2	55 31.8	55 4.9	54 39.7	54 13.9	....	....	....	....	....
	W.	S.	23	....	9 51.7	10 19.5	10 45.0	11 12.3	11 39.3	12 5.7	....	....	....	....	....
		N.	23	....	17 59.2	17 36.9	17 14.0	16 51.2	16 26.6	16 3.4	....	....	....	....	....
23	E.	N.	17	....	....	....	59 28.3	0 1.8	0 32.3	1 4.6	1 37.6	1 55.3	2 11.0	2 29.9	2 49.6
		S.	18	....	....	....	8 54.8	8 12.0	7 29.8	6 48.7	6 11.4	5 52.8	5 34.8	5 11.1	4 53.0
	W.	S.	18	....	....	....	55 15.6	55 59.2	56 40.0	57 18.4	58 1.8	58 20.8	58 39.6	58 58.5	59 17.9
		N.	19	....	....	....	4 41.7	4 10.4	3 40.9	3 9.7	2 34.3	2 17.6	2 0.7	1 41.7	1 24.1
25	E.	N.	14	....	....	....	....	4 7.7	4 53.6	5 39.3	6 33.0	6 57.2	7 23.0	7 50.8	8 20.6
		S.	14	....	....	....	....	20 19.7	18 1.0	16 17.7	14 42.9	14 0.7	13 21.4	12 42.2	12 2.9
	W.	S.	14	....	....	....	....	32 27.6	34 41.5	36 39.7	38 9.2	38 53.7	39 29.0	40 10.8	40 50.6
		N.	14	....	....	....	....	48 44.4	47 59.6	47 13.7	46 17.6	45 55.0	45 28.4	45 1.0	44 31.9
25	E.	N.	15 42 57.0	43 9.0	43 19.9	43 31.8	43 43.4	43 55.1	44 6.2	....	44 30.7	....	....	....	....
		S.	15 47 38.4	47 25.7	47 13.2	47 1.5	46 49.3	46 37.0	46 24.9	....	46 1.0	....	....	....	....
	W.	S.	18 32 34.1	32 46.7	32 58.7	33 10.3	33 22.0	33 35.0	33 46.0	....	34 10.5	....	....	....	....
		N.	18 37 14.9	37 2.4	36 50.8	36 39.8	36 27.9	36 16.1	36 4.4	....	35 40.9	....	....	....	....
25	E.	S.	15 56 15.5	56 28.9	56 42.7	56 57.0	57 11.0	57 23.6	....	....	....	....	....	....	....
		N.	16 1 26.7	1 10.8	0 56.3	0 41.8	0 27.9	0 15.4	....	....	....	....	....	....	....
	W.	N.	18 24 4.1	24 19.0	24 33.9	24 48.9	25 3.3	25 15.5	....	....	....	....	....	....	....
		S.	18 29 15.9	29 2.0	28 48.9	28 34.5	28 20.8	28 8.1	....	....	....	....	....	....	....
25	E.	N.	16 31 19.0	31 32.4	31 44.8	31 57.9	32 9.7	32 23.2	....	....	....	....	....	....	....
		S.	16 36 26.4	36 12.2	35 59.8	35 45.8	35 33.6	35 19.2	....	....	....	....	....	....	....
	W.	S.	19 6 17.5	6 30.4	6 45.9	6 58.1	7 10.6	7 24.2	....	....	....	....	....	....	....
		N.	19 11 25.5	11 11.3	10 59.2	10 46.0	10 34.4	10 20.3	....	....	....	....	....	....	....
25	E.	S.	17	....	....	....	59 47.3	0 15.6	0 49.0	1 21.5	1 54.3	2 11.9	2 28.6	2 46.6	....
		N.	18	....	....	....	8 32.2	7 52.2	7 10.4	6 28.5	5 50.4	5 32.0	5 12.8	4 53.8	....
	W.	N.	18	....	....	....	55 39.0	56 18.6	57 0.0	57 41.7	58 20.9	58 39.7	58 56.8	59 16.1	....
		S.	19	....	....	....	4 23.2	3 53.0	3 19.9	2 48.4	2 15.3	2 0.2	1 42.6	1 24.6	....
25	E.	N.	22	....	....	....	47 34.4	48 2.0	....	48 58.5	49 27.8	49 39.9	49 55.0	50 11.6	....
		S.	22	....	....	....	55 30.0	54 55.0	....	53 48.3	53 15.6	53 0.0	52 45.1	52 29.8	....
	W.	S.	23	....	....	....	53 50.0	54 24.5	....	55 29.0	56 4.7	56 21.8	56 35.0	56 52.6	....
		N.	0	....	....	....	1 47.0	1 21.6	....	0 21.8	59 52.8	59 39.4	59 25.0	59 11.4	....
25	E.	N.	0	....	....	....	....	....	....	12 42.4	13 36.7	13 58.4	14 22.6	14 54.7	15 23.0
		S.	0	....	....	....	....	....	....	22 54.5	21 19.5	20 44.2	20 11.5	19 25.2	18 52.0
	W.	S.	0	....	....	....	....	....	....	44 52.5	46 25.6	47 5.9	47 40.0	48 17.4	48 55.0
		N.	0	....	....	....	....	....	....	55 3.5	54 14.0	53 51.2	53 23.1	52 57.1	52 26.9
26	E.	S.	15 43 2.0	43 13.9	43 25.7	43 37.9	43 49.9	44 1.0	44 13.1	44 24.7	44 37.0	44 42.7	....	....	....
		N.	15 47 32.3	47 19.4	47 7.3	46 54.0	46 41.6	46 31.0	46 18.4	46 6.1	45 53.6	45 48.1	....	....	....
	W.	N.	18 32 38.0	32 50.5	33 2.6	33 15.4	33 28.3	33 40.0	33 52.4	34 4.9	34 16.5	34 22.1	....	....	....
		S.	18 37 9.7	36 56.9	36 45.5	36 32.4	36 20.6	36 9.9	35 57.7	35 45.8	35 34.0	35 27.6	....	....	....
26	E.	N.	15 56 10.2	56 23.3	56 36.3	56 49.4	57 3.0	57 16.9	57 30.0	57 43.1	57 56.5	58 3.4	....	....	....
		S.	16 1 32.5	1 18.4	1 3.1	0 49.9	0 36.7	0 22.1	0 9.0	59 55.0	59 40.8	59 34.1	....	....	....
	W.	S.	18 23 57.9	24 12.5	24 26.4	24 39.3	24 54.5	25 8.6	25 22.8	25 35.1	25 50.0	25 57.2	....	....	....
		N.	18 29 20.0	29 6.3	28 53.3	28 40.9	28 27.3	28 13.8	28 0.1	27 47.0	27 33.7	27 26.9	....	....	....
26	E.	S.	17	....	....	....	59 50.0	0 19.5	0 53.8	1 26.1	2 0.0	2 16.7	2 34.0	2 50.4	3 6.7
		N.	18	....	....	....	8 35.0	7 53.8	7 11.5	6 30.1	5 52.1	5 31.7	5 12.6	4 55.2	4 37.9
	W.	N.	18	....	....	....	55 36.0	56 18.2	57 1.0	57 39.8	58 19.5	58 38.4	58 58.4	59 14.2	59 34.5
		S.	19	....	....	....	4 23.4	3 52.9	3 19.3	2 47.4	2 12.2	1 57.8	1 39.7	1 22.2	1 6.2

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	″	° ′ ″	″	° ′ ″		
γ Bootis	101.0	92.2	-0.075	-0.130	+38 49 21.51	-7.36	+38 49 14.15	I.	Fair seeing.
	93.0	100.6							
	93.1	101.7	-0.175						Fair seeing.
	108.8	97.4							
25 Herculis	110.5	101.1	0.281	0.483	37 39 53.30	-13.03	37 39 40.27	I.	Fair seeing.
	105.5	110.4							
	122.3	119.7	0.663						Fair seeing.
	128.0	120.0							
e Herculis	117.6	108.0	0.381	-0.335	37 25 8.32	-14.99	37 24 53.33	T.	Clouds; faint.
	112.0	115.5							
	128.4	126.2	0.275						Fair seeing.
	126.4	124.0							
α Lyræ	128.0	120.5	0.606	-0.661	38 40 48.78	-16.89	38 40 31.89	I.	1¼-inch aperture; tolerable seeing.
	126.2	124.0							
	127.2	124.8	-0.681						1¼-inch aperture; tolerable seeing.
	130.5	122.0							
10 Lacertæ	128.8	128.0	0.000	-0.141	38 26 42.12	12.62	38 26 29.50	B.	Fair seeing; light clouds.
	127.2	128.0							
	123.3	124.1	-0.275						Fair seeing; clouds.
	125.6	120.4							
α Lyræ	115.5	110.1	-0.119	-0.544	38 40 48.95	-17.38	38 40 31.57	B.	Fair seeing.
	112.2	115.7							
	127.9	118.5	-0.938						Light clouds; faint; little unsteady.
	127.8	122.2							
γ Bootis	169.1	173.1	+0.213	+0.119	38 49 22.08	-7.63	38 49 14.45	B.	Light clouds; faint; unsteady at times.
	172.6	172.0							
	171.7	171.4	+0.025						Light clouds; faint; unsteady at times.
	171.0	171.7							
π Herculis	174.5	176.8	0.000	-0.348	36 56 45.68	-15.65	36 56 30.03	B.	Light clouds; good seeing.
	178.9	176.6							
	195.3	189.1	-0.713						Image not good; unsteady.
	195.2	190.0							
e Herculis	179.3	176.4	-0.213	-0.483	37 25 8.12	-15.82	37 24 52.30	B.	Good seeing.
	179.2	178.7							
	193.7	188.8	-0.769						Poor image; unsteady.
	195.7	188.3							
θ Herculis	180.0	180.0	-0.200	-0.504	37 16 16.57	-17.00	37 15 59.57	T.	
	182.8	179.6							
	198.8	191.4	-0.831						
	197.9	192.0							
α Lyræ	192.0	186.4	-0.725	-0.854	38 40 49.07	-17.93	38 40 31.14	B.	Fair image; unsteady.
	193.2	187.2							
	198.3	189.1	-1.000						Poor image; unsteady.
	198.0	191.2							
14 Andromedæ .	206.4	204.8	-0.513	-0.573	38 35 46.78	-10.73	38 35 36.05	I.	Image much diffuse at times and unsteady.
	207.7	201.1							
	124.8	123.6	-0.625						Diffuse image; fairly steady.
	129.0	120.2							
32 Andromedæ .	128.4	120.8	-0.469	-0.537	38 49 4.25	-6.48	38 48 57.77	I.	Diffuse image; unsteady.
	124.9	125.0							
	125.6	124.8	-0.575						Fair image; unsteady.
	130.4	122.0							
π Herculis	116.4	112.0	-0.319	-0.775	36 56 45.87	-15.89	36 56 29.98	I.	Good seeing.
	117.2	116.5							
	134.8	123.6	-1.213						Good seeing.
	132.9	124.7							
e Herculis	117.2	116.4	-0.344	-0.860	37 25 9.20	-16.05	37 24 53.15	I.	Good seeing.
	122.1	117.4							
	135.0	124.6	-1.350						Good seeing.
	134.8	123.6							
α Lyræ	136.7	124.6	-1.406	-1.339	+38 40 50.44	-18.22	+38 40 32.22	I.	1¼-inch aperture; good seeing
	135.4	125.0							
	135.1	122.2	-1.206						1¼-inch aperture; good seeing.
	131.6	125.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
July 26	E.	S.	21	....	....	48 53.3	49 17.4	49 40.4	50 4.4	50 28.5	50 51.4	51 3.9	51 15.5	....	....
		N.	21	....	....	55 43.5	55 16.8	54 52.6	54 25.2	53 59.5	53.33.9	53 21.1	53 8.8	....	....
	W.	N.	23	....	....	10 31.5	10 58.6	11 22.7	11 51.3	12 15.9	12 40.3	12 53.4	13 5.2	....	....
		S.	23	....	....	17 22.9	16 59.4	16 35.9	16 11.0	15 47.4	15 24.4	15 12.8	15 1.3	....	....
26	E.	N.	22	....	....	....	....	....	....	....	49 25.6	49 41.1	49 56.1	50 9.9	50 25.0
		S.	22	....	....	....	....	....	....	....	53 14.4	52 58.9	52 43.6	52 28.0	52 12.4
	W.	S.	23	....	....	....	....	....	....	....	56 3.1	56 18.9	56 32.7	56 50.7	57 8.4
		N.	23	....	....	....	....	....	....	....	59 51.1	59 37.5	59 21.3	59 5.6	58 51.1
30	E.	S.	15 42 58.9	43 10.7	43 22.4	43 34.7	43 46.5	43 58.0	44.10.3	....	....	....	....	....	....
		N.	15 47 29.4	47 17.2	47 4.7	46 52.0	46 39.2	46 27.9	46 15.5	....	....	....	....	....	....
	W.	N.	18 32 34.2	32 46.7	32 59.6	33 12.5	33 23.8	33 35.6	33 47.8	....	....	....	....	....	....
		S.	18 37 6.6	36 54.5	36 42.6	36 30.3	36 18.4	36 7.2	35 56.4	....	....	....	....	....	....
30	E.	N.	22	....	....	....	47 34.7	48 3.4	48 30.5	48 58.1	49 28.3	49 43.0	49 56.9	50 13.5	50 28.8
		S.	22	....	....	....	55 27.8	54 52.2	54 21.7	53 46.6	53 13.4	52 57.3	52 43.2	52 26.3	52 9.8
	W.	S.	23	....	....	....	53 47.4	54 21.6	54 54.0	55 28.4	56 2.2	56 16.8	56 32.9	56 49.6	57 5.0
		N.	0	....	....	....	1 38.9	1 12.4	0 43.3	0 15.4	59 46.9	59 32.6	59 18.2	59 3.2	58 46.8
30	E.	N.	0	....	....	....	....	....	11 58.5	....	13 40.4	14 1.2	14 28.5	14 55.7	15 23.7
		S.	0	....	....	....	....	....	24 17.0	....	21 18.4	20 38.1	20 2.8	19 25.0	18 44.8
	W.	S.	0	....	....	....	....	....	43 19.0	....	46 31.9	47 8.4	47 37.6	48 16.9	48 52.6
		N.	0	....	....	....	....	....	55 42.2	....	54 3.7	53 39.3	53 12.4	52 46.6	52 21.4
30	E.	N.	23	....	44 55.7	45 10.3	45 25.6	45 43.5	45 57.9	46 13.8	46 31.1	46.39.5	46 46.1	....	....
		S.	23	....	50 11.2	49 54.2	49 37.6	49 21.4	49 6.0	48 48.8	48 31.4	48 23.2	48 14.3	....	....
	W.	S.	1	....	48 29.0	48 45.6	49 1.7	49 18.9	49 35.1	49 52.7	50 9.9	50 17.5	50 25.3	....	....
		N.	1	....	53 46.3	53 30.7	53 15.2	52 58.7	52 43.4	52 27.7	52 10.0	52 3.0	51 55.6	....	....
30	E.	N.	2	....	9 34.0	9 54.0	10 15.6	10 38.5	10 59.5	11 21.9	11 45.7	11 56.4	12 7.5	12 18.6	12 31.3
		S.	2	....	17 6.0	16 41.6	16 16.8	15 51.9	15 26.5	15 2.9	14 37.4	14 27.1	14 15.7	14 3.4	13 49.5
	W.	S.	3	....	36 24.0	36 47.5	37 12.1	37 38.3	38 1.1	38 27.4	38 51.5	39 3.5	39 14.4	39 25.7	39 41.3
		N.	3	....	43 58.0	43 37.1	43 15.4	42 52.9	42 30.9	42 9.2	41 46.9	41 35.3	41 24.4	41 13.4	40 59.3
31	E.	N.	14	....	....	....	....	4 7.5	4 52.1	5 39.0	6 29.6	6 56.2	7 19.5	7 49.4	8 19.0
		S.	14	....	....	....	....	20 14.9	18 0.5	16 11.7	14 35.0	13 56.8	13 16.4	12 39.2	12 2.0
	W.	S.	14	....	....	....	....	32 32.9	34 44.5	36 34.5	38 10.9	38 52.4	39 28.6	40 8.5	40 49.0
		N.	14	....	....	....	....	48 39.5	47 56.8	47 8.6	46 16.6	45 50.6	45 27.2	44 56.9	44 27.5
31	E.	N.	15 42 53.6	43 6.1	43 17.6	43 29.2	43 40.5	43 52.4	44 3.7	44 15.1	....	....	....	....	....
		S.	15 47 33.4	47 21.1	47 8.7	46 56.8	46 44.8	46 32.5	46 20.8	46 8.7	....	....	....	....	....
	W.	S.	18 32 29.6	32 42.6	32 54.6	33 6.4	33 18.5	33 31.4	33 42.2	33 54.5	....	....	....	....	....
		N.	18 37 9.6	36 57.5	36 45.5	36 34.9	36 22.9	36 10.1	35 58.7	35 48.1	....	....	....	....	....
31	E.	N.	16 31 16.8	31 30.0	31 42.2	....	....	32 21.0	32 33.0	32 45.7	32 58.7	....	....	....	....
		S.	16 36 22.6	36 9.0	35 55.2	....	....	35 15.2	35 3.8	34 49.4	34 35.8	....	....	....	....
	W.	S.	19 6 12.9	6 27.4	6 40.2	....	....	7 20.7	7 33.5	7 46.2	7 59.5	....	....	....	....
		N.	19 11 19.2	11 6.8	10 53.4	....	....	10 15.2	10 3.2	9 49.4	9 35.9	....	....	....	....
31	E.	S.	17	....	25 26.6	25 41.5	25 55.0	26 7.4	26 21.9	26 36.1	26 50.0	26 56.6	27 3.4	....	....
		N.	17	....	29 50.0	29 34.7	29 19.6	29 6.6	28 52.0	28 37.5	28 23.4	28 15.9	28 9.0	....	....
	W.	N.	19	....	49 46.4	50 1.9	50 16.3	50 30.0	50 45.0	50 59.1	51 13.9	51 20.4	51 27.0	....	....
		S.	19	....	54 9.5	53 55.8	53 40.4	53 29.0	53 13.6	53 0.0	52 47.0	52 39.4	52 32.5	....	....
31	E.	S.	18 8 22.6	8 38.8	8 55.8	9 12.4	9 29.5	9 44.8	10 2.1	10 18.8	10 35.5	....	....	....	....
		N.	18 14 50.9	14 31.3	14 14.0	13 54.3	13 36.8	13 20.7	13 1.2	12 44.1	12 27.6	....	....	....	....
	W.	N.	20 7 54.4	8 12.4	8 30.9	8 49.5	9 6.9	9 24.1	9 42.0	9 59.5	10 16.4	....	....	....	....
		S.	20 14 22.3	14 5.8	13 49.2	13 31.9	13 15.1	12 59.5	12 43.2	12 25.5	12 8.5	....	....	....	....
31	E.	S.	22	....	....	....	47 46.5	48 12.6	48 42.4	49 11.5	49 39.1	49 53.3	50 7.4	50 22.3	50 38.5
		N.	22	....	....	....	55 14.4	54 41.4	54 6.9	53 34.2	53 3.1	52 46.0	52 30.4	52 14.8	51 58.0
	W.	N.	23	....	....	....	53 58.5	54 31.1	55 4.8	55 38.8	56 11.4	56 27.3	56 42.6	56 57.6	57 13.0
		S.	0	....	....	....	1 28.1	1 1.9	0 32.1	0 2.9	59 32.5	59 21.0	59 5.7	58 51.9	58 36.7
31	E.	S.	23	....	45 0.0	....	45 32.0	45 47.2	46 3.6	46 20.4	46 37.0	46 44.4	46 51.0	....	....
		N.	23	....	50 6.2	....	49 31.0	49 15.5	48 58.3	48 40.8	48 24.0	48 15.3	48 8.2	....	....
	W.	N.	1	....	48 33.5	....	49 8.8	49 24.4	49 42.4	49 58.4	50 15.0	50 22.6	50 31.1	....	....
		S.	1	....	53 39.5	....	53 7.4	52 53.6	52 35.6	52 19.2	52 3.9	51 56.4	51 48.5	....	....
Aug. 1	E.	N.	15 56 5.6	56 19.5	56 33.3	....	56 59.4	57 12.8	57 25.7	57 39.7	57 53.6	....	....	....	....
		S.	16 1 27.7	1 13.4	0 59.0	....	0 32.0	0 16.4	0 3.8	59 50.2	59 35.4	....	....	....	....
	W.	S.	18 23 53.6	24 7.6	24 21.9	....	24 49.8	25 3.5	25 16.5	25 30.5	25 45.8	....	....	....	....
		N.	18 29 14.9	29 1.2	28 47.7	....	28 21.9	28 8.4	27 55.3	27 41.6	27 27.7	....	....	....	....
1	E.	S.	16 31 19.9	31 33.0	31 46.0	31 59.4	32 13.0	32 25.0	32 37.3	....	....	....	....	....	....
		N.	16 36 17.0	36 3.3	35 50.1	35 35.4	35 22.0	35 9.8	34 55.5	....	....	....	....	....	....
	W.	N.	19 6 16.1	6 29.6	6 44.2	6 58.1	7 12.2	7 24.4	7 38.1	....	....	....	....	....	....
		S.	19 11 13.8	11 0.9	10 47.6	10 34.9	10 21.4	10 9.3	9 55.8	....	....	....	....	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	″	° ′ ″	″	° ′ ″		
10 Lacertæ	135.0	124.7	−1.163	−1.036	+38 26 43.35	−13.76	+38 26 29.59	B.	Fair seeing.
	133.9	125.6							
	133.0	127.5	−0.863						Fair seeing.
	135.3	127.0							
14 Andromedæ	134.3	124.9	−1.263	−1.027	38 35 47.35	−11.00	38 35 36.35	B.	Fair seeing.
	135.7	124.9							
	135.6	128.6	−0.744						Fair seeing.
	134.7	129.8							
π Herculis	119.2	115.6	0.306	−0.410	36 56 46.61	−16.75	36 56 29.86	B.	Fair seeing.
	119.3	118.0							
	130.4	124.2	−0.504						Light clouds; faint at times.
	128.6	126.2							
14 Andromedæ	135.5	132.0	−0.394	−0.399	38 35 49.67	−12.25	38 35 37.42	I.	Diffuse image.
	136.4	133.6							
	140.4	137.6	−0.388						Good image.
	141.5	138.1							
32 Andromedæ	143.7	136.7	0.662	−0.701	38 49 5.28	− 7.75	38 48 57.53	I.	Diffuse image.
	143.1	139.5							
	144.0	139.6	−0.713						Fair image; steady.
	145.5	138.5							
μ Andromedæ	139.9	136.1	−0.438	−0.752	37 51 58.41	− 6.97	37 51 51.44	I.	Diffuse image.
	140.4	137.2							
	149.6	139.2	−1.050						Fairly good image; steady.
	148.0	141.6							
ρ Persei	149.2	142.4	−0.700	−0.583	38 23 7.57	+ 1.95	38 23 9.52	I.	Good seeing.
	148.8	144.4							
	148.0	144.4	−0.450						Faint.
	146.4	142.8							
γ Bootis	139.5	140.9	+0.250	+0.230	38 49 22.19	− 7.84	38 49 14.35	I.	Faint; steady.
	141.1	143.7							
	142.2	144.3	+0.201						Faint; steady.
	146.4	147.6							
π Herculis	155.2	155.2	−0.044	−0.274	36 56 46.94	−16.91	36 56 30.03	T.	Good seeing; steady.
	157.7	157.0							
	175.4	175.0	−0.513						Not well defined; fair seeing.
	179.1	171.3							
θ Herculis	163.8	161.8	−0.288	−0.436	37 16 18.88	−18.48	37 16 0.40	T.	Wires badly defined; good seeing.
	165.7	163.1							
	176.1	174.5	−0.594						Ill defined; fair seeing.
	179.1	171.2							
ζ′ Lyræ	169.2	167.3	−0.425	−0.530	37 29 20.14	−19.68	37 29 0.46	T.	Ill defined; unsteady.
	171.8	166.9							
	180.2	172.0	−0.644						Good seeing.
	178.0	175.9							
θ Lyræ	175.6	172.4	−0.631	−0.587	37 55 53.82	−20.10	37 55 33.72	T.	Fair seeing.
	178.1	171.2							
	180.2	173.8	−0.550						Fair seeing.
	179.6	177.2							
14 Andromedæ	108.4	104.0	−0.675	−0.752	38 35 50.21	−12.57	38 35 37.64	I.	Diffuse image.
	108.4	102.0							
	112.0	104.4	−0.775						Diffuse image.
	110.7	105.9							
μ Andromedæ	110.8	105.6	−0.575	−0.732	37 51 58.66	− 7.24	37 51 51.42	I.	Fair image.
	110.4	106.4							
	120.4	111.6	−0.850						Good image.
	117.6	112.8							
e Herculis	64.4	62.0	−0.394	−0.494	37 25 10.53	−17.25	37 24 53.28	T.	Not well defined.
	68.5	64.6							
	79.2	72.4	0.550						Fair seeing.
	78.0	76.0							
θ Herculis	72.1	65.6	−0.556	0.576	+37 16 18.91	−18.67	37 16 0.24	T.	Not well defined.
	70.4	68.0							
	80.4	78.0	−0.550						Good seeing.
	83.8	77.4							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Aug. 1	E.	N.	17	....	25 21.8	25 34.3	25 48.3	26 2.2	26 15.1	26 29.4	26 43.4	26 50.3	26 56.8	....	....
		S.	17	....	29 53.9	29 39.3	29 25.4	29 11.0	28 56.9	28 43.1	28 27.9	28 21.3	28 15.0	....	....
	W.	S.	19	....	49 40.6	49 54.8	50 9.0	50 23.7	50 38.5	50 52.0	51 6.3	51 13.9	51 21.3	....	....
		N.	19	....	54 13.2	53 59.6	53 46.1	53 32.1	53 19.2	53 5.3	52 50.7	52 44.5	52 37.9	....	....
1	E.	N.	18	....	8 49.4	9 4.7	9 20.7	9 38.0	9 53.6	10 10.5	10 27.0	10 35.4	10 44.1	....	....
		S.	18	....	14 18.4	14 1.0	13 43.1	13 25.8	13 8.7	12 52.0	12 34.1	12 25.0	12 17.8	....	....
	W.	S.	20	....	8 24.6	8 41.8	8 59.6	9 17.1	9 34.1	9 51.3	10 8.8	10 17.5	10 25.6	....	....
		N.	20	....	13 53.2	13 37.3	13 21.1	13 4.7	12 47.9	12 31.6	12 14.9	12 7.0	11 58.9	....	....
2	E.	N.	22	....	....	....	48 33.8	49 2.4	49 28.5	49 57.8	50 26.5	50 43.3	50 56.6	51 11.8	51 28.2
		S.	22	....	....	....	56 25.0	55 50.5	55 18.9	54 45.9	54 10.1	53 55.4	53 39.2	53 25.1	53 7.0
	W.	S.	23	....	....	....	54 43.6	55 18.6	55 50.9	56 24.1	56 57.9	57 14.8	57 29.6	57 44.5	58 3.5
		N.	0	....	....	....	2 37.6	2 8.6	1 42.0	1 13.3	0 44.0	0 28.8	0 14.8	59 58.5	59 44.4
2	E.	N.	0	....	....	....	....	12 17.4	12 58.8	13 46.6	14 34.0	15 2.8	15 27.6	15 57.5	16 25.2
		S.	0	....	....	....	....	27 22.4	25 23.7	23 44.5	22 16.9	21 40.9	21 1.0	20 22.6	19 46.4
	W.	S.	0	....	....	....	....	42 13.1	44 13.5	45 49.7	47 23.3	47 59.4	48 37.3	49 14.8	49 43.8
		N.	0	....	....	....	....	57 23.4	56 38.7	55 53.5	55 0.1	54 36.1	54 11.2	53 42.1	53 12.4
2	E.	N.	23	....	45 54.0	46 8.8	46 24.5	46 41.2	46 56.4	47 13.3	47 29.4	47 36.5	47 44.7	....	....
		S.	23	....	51 9.5	50 53.6	50 37.0	50 19.4	50 3.6	49 47.3	49 29.0	49 21.1	49 14.0	....	....
	W.	S.	1	....	49 27.0	49 42.2	49 59.1	50 16.9	50 32.9	50 49.4	51 7.4	51 15.3	51 23.1	....	....
		N.	1	....	54 43.6	54 29.1	54 13.4	53 57.3	53 41.2	53 25.7	53 8.0	53 0.5	52 53.0	....	....
2	E.	N.	2	....	10 32.0	10 53.0	11 13.8	11 36.4	11 57.9	12 19.0	12 43.4	12 54.6	13 4.7	13 17.1	13 29.7
		S.	2	....	18 4.2	17 40.7	17 15.0	16 49.8	16 25.3	16 1.5	15 36.9	15 25.1	15 13.5	15 0.4	14 47.4
	W.	S.	3	....	37 21.4	37 45.0	38 11.2	38 36.4	39 0.2	39 25.5	39 49.5	40 1.6	40 12.0	40 25.2	40 37.8
		N.	3	....	44 55.7	44 34.4	44 13.2	43 51.3	43 28.8	43 7.4	42 44.9	42 33.1	42 21.9	42 10.4	41 57.5
6	E.	S.	14	....	....	....	....	5 27.5	6 15.5	7 5.4	7 57.0	8 21.9	8 48.1	9 16.0	9 46.2
		N.	14	....	....	....	....	19 54.4	17 52.9	16 15.4	14 47.8	14 11.1	13 32.8	12 56.7	12 23.0
	W.	N.	14	....	....	....	....	34 43.2	36 46.0	38 25.1	39 49.2	40 26.8	41 5.8	41 39.4	42 16.3
		S.	14	....	....	....	....	49 14.3	48 26.0	47 35.7	46 43.0	46 19.8	45 52.5	45 23.5	44 56.1
6	E.	N.	15 43 50.2	44 2.0	44 13.9	44 25.4	44 36.4	44 47.6	45 0.0	45 12.0	45 24.2	....	....	....	....
		S.	15 48 28.5	48 15.9	48 4.2	47 52.3	47 40.2	47 27.8	47 15.8	47 4.0	46 51.7	....	....	....	....
	W.	S.	18 33 25.8	33 38.9	33 50.6	34 2.3	34 14.5	34 27.0	34 38.4	34 50.8	35 2.9	....	....	....	....
		N.	18 38 2.2	37 51.0	37 39.4	37 28.5	37 17.1	37 5.4	36 53.2	36 42.8	36 30.0	....	....	....	....
6	E.	S.	16 32 15.3	32 28.6	....	32 54.4	33 6.9	....	33 32.4	33 45.7	33 59.0	....	....	....	....
		N.	16 37 15.3	37 2.2	....	36 34.3	36 20.7	....	35 53.3	35 40.4	35 27.2	....	....	....	....
	W.	N.	19 7 11.5	7 24.8	....	7 53.5	8 6.7	....	8 32.8	8 46.8	9 0.0	....	....	....	....
		S.	19 12 11.4	11 58.9	....	11 31.9	11 18.9	....	10 54.1	10 40.2	10 27.6	....	....	....	....
6	E.	S.	17 43 54.5	44 14.7	44 34.0	....	45 16.0	45 34.7	45 54.9	....	....	....	....	....	....
		N.	17 51 56.9	51 32.9	51 8.8	....	50 24.0	50 3.4	49 40.4	....	....	....	....	....	....
	W.	N.	19 20 30.2	20 54.0	21 16.5	....	22 2.6	22 23.5	22 46.8	....	....	....	....	....	....
		S.	19 28 32.2	28 12.7	27 52.3	....	27 11.6	26 52.3	26 31.4	....	....	....	....	....	....
6	E.	N.	18	....	9 47.8	10 4.4	10 20.2	10 36.7	10 53.4	11 9.7	11 26.5	11 35.0	11 42.7	....	....
		S.	18	....	15 14.2	14 56.5	14 39.2	14 21.5	14 3.8	13 47.1	13 28.4	13 21.4	13 13.1	....	....
	W.	S.	20	....	9 21.4	9 38.9	9 56.9	10 14.3	10 30.5	10 47.7	11 7.0	11 14.0	11 22.1	....	....
		N.	20	....	14 45.9	14 31.3	14 14.8	13 58.3	13 42.1	13 24.7	13 9.1	13 0.8	12 53.6	....	....
6	E.	S.	0	....	....	....	....	12 23.5	13 14.3	14 3.7	14 53.7	15 19.8	15 46.3	16 12.0	16 41.0
		N.	0	....	....	....	....	26 50.4	24 51.5	23 13.9	21 58.3	21 14.4	20 40.5	20 2.2	19 31.3
	W.	N.	0	....	....	....	....	42 38.0	44 37.3	46 13.8	47 41.9	48 15.6	48 53.1	49 28.3	50 1.8
		S.	0	....	....	....	....	57 4.9	56 17.0	55 26.4	54 39.9	54 14.4	53 46.5	53 20.4	52 49.6
6	E.	N.	23 45 22.9	45 36.6	45 52.5	....	....	46 39.3	46 54.7	47 11.3	47 28.4	....	....	....	....
		S.	23 51 42.0	51 26.6	51 7.2	....	....	50 17.1	50 1.4	49 43.9	49 26.9	....	....	....	....
	W.	S.	1 48 49.0	49 5.5	49 22.9	....	....	50 12.6	50 30.0	50 47.9	51 4.5	....	....	....	....
		N.	1 55 12.9	54 56.6	54 40.2	....	....	53 53.4	53 36.4	53 20.7	53 5.8	....	....	....	....
7	E.	S.	15 43 51.8	44 4.0	44 15.7	44 28.6	....	44 51.4	45 3.2	45 15.5	45 27.1	....	....	....	....
		N.	15 48 25.7	48 13.0	48 0.4	47 47.6	....	47 23.8	47 11.5	46 59.1	46 47.4	....	....	....	....
	W.	N.	18 33 26.5	33 39.8	33 52.7	34 5.1	....	34 28.4	34 41.7	34 54.1	35 5.4	....	....	....	....
		S.	18 38 1.1	37 49.2	37 37.6	37 24.9	....	37 2.1	36 49.4	36 37.7	36 26.0	....	....	....	....
7	E.	N.	15 57 2.9	57 16.3	57 30.2	57 42.5	57 56.2	58 9.7	58 22.9	58 37.2	58 50.7	....	....	....	....
		S.	16 2 22.8	2 7.6	1 53.8	1 40.6	1 26.3	1 12.2	0 58.6	0 44.9	0 30.4	....	....	....	....
	W.	S.	18 24 49.8	25 2.8	25 18.1	25 32.0	25 46.0	26 0.5	26 14.5	26 28.0	26 41.2	....	....	....	....
		N.	18 30 9.3	29 55.0	29 41.3	29 29.6	29 16.3	29 1.8	28 49.5	28 35.1	28 21.8	....	....	....	....
7	E.	S.	16 32 14.8	32 28.2	32 41.2	32 54.2	33 7.2	33 19.3	33 33.2	33 46.2	33 59.0	....	....	....	....
		N.	16 37 14.6	37 0.4	36 47.2	36 32.8	36 19.2	36 7.0	35 52.4	35 39.9	35 25.8	....	....	....	....
	W.	N.	19 7 10.3	7 25.2	7 38.0	7 52.5	8 5.6	8 18.4	8 31.8	8 45.6	8 58.6	....	....	....	....
		S.	19 12 10.6	11 58.5	11 45.2	11 31.1	11 18.6	11 6.5	10 52.6	10 39.7	10 27.1	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
ζ′ Lyræ........	71.2	69.2	−0.488	−0.470	+37 29 20.40	−19.92	+37 29 0.48	T.	Not well defined; fair seeing.
	73.6	67.8							
	86.0	78.4	−0.413						Good seeing.
	82.0	83.0							
θ Lyræ........	75.6	73.2	−0.538	−0.367	37 55 53.90	−20.35	37 55 33.55	T.	Fair seeing.
	78.6	72.4							
	86.0	80.0	−0.163						Good seeing.
	81.9	85.3							
14 Andromedæ .	110.0	108.0	−0.250	−0.272	38 35 50.61	−13.18	38 35 37.43	I.	Good image; fairly steady.
	112.9	110.9							
	113.6	111.2	−0.275						Good image; fairly steady.
	114.0	111.2							
32 Andromedæ .	115.1	110.8	−0.344	−0.369	38 49 6.90	− 8.57	38 48 58.33	I.	Good seeing.
	113.6	112.4							
	116.0	112.5	−0.369						Good seeing.
	116.0	113.6							
μ Andromedæ .	113.6	112.4	−0.275	−0.295	37 51 59.59	− 7.77	37 51 51.82	I.	Good image; steady.
	114.0	110.8							
	116.0	113.6	−0.300						Good image; steady.
	116.0	113.6							
ρ Persei	117.1	112.9	−0.575	0.564	38 23 7.75	+ 1.48	38 23 9.23	I.	Good image; little unsteady.
	118.9	113.9							
	114.8	108.0	−0.519						Good image; faint.
	108.1	106.6							
γ Bootis.......	110.0	108.8	0.000	−0.026	38 49 22.45	− 7.80	38 49 14.65	I.	Good image; fairly steady.
	108.8	110.0							
	108.8	110.4	−0.050						Good image; fairly steady.
	113.2	110.8							
π Herculis.....	121.2	122.0	−0.131	−0.483	36 56 47.74	−17.76	36 56 29.98	T.	Fair seeing; steady.
	127.7	124.8							
	159.0	156.0	0.838						Fair seeing.
	162.0	151.6							
θ Herculis.....	138.0	132.0	0.475	−0.598	37 16 19.12	−19.54	37 15 59.58	T.	Good seeing; fairly steady.
	141.2	139.6							
	158.2	157.8	−0.719						Poor seeing; unsteady.
	162.3	151.2							
B. A. C. 6365 .	156.3	152.0	0.744	0.903	38 15 52.38	−20.93	38 15 31.45	T.	Fair seeing; not quite steady.
	161.0	153.4							
	165.2	151.6	1.050						Poor seeing; unsteady.
	161.6	158.4							
θ Lyræ........	162.0	154.4	0.494	−0.698	37 55 55.60	−21.51	37 55 34.09	T.	Fair seeing; not quite steady.
	158.3	158.0							
	162.5	161.5	0.900						Poor seeing; unsteady.
	170.3	156.9							
32 Andromedæ .	116.0	110.0	0.750	−0.815	38 49 8.35	− 9.49	38 48 58.86	I.	Bad image and unsteady.
	116.4	110.4							
	117.2	111.6	0.825						Better.
	120.6	113.0							
μ Andromedæ .	116.6	110.2	0.775	0.744	37 52 0.75	− 8.64	37 51 52.11	I.	Very much diffuse and very unsteady at intervals.
	116.0	110.0							
	120.8	115.6	0.675						Very much diffuse and very unsteady at intervals.
	121.2	115.6							
π Herculis.....	72.5	72.1	−0.225	−0.450	36 56 47.74	−17.92	36 56 29.82	T.	Good seeing; steady; well defined.
	77.2	74.0							
	95.2	89.6	−0.644						Good seeing; somewhat diffuse.
	95.9	91.2							
e Herculis.....	78.4	74.0	−0.331	−0.477	37 25 11.48	−18.13	37 24 53.35	T.	Good seeing; steady.
	79.8	78.9							
	93.2	89.0	−0.588						Good seeing.
	95.0	89.8							
θ Herculis.....	82.0	86.2	−0.163	−0.378	+37 16 19.70	−19.74	+37 15 59.96	T.	Good seeing; steady.
	88.4	81.6							
	97.6	94.0	−0.569						Good seeing.
	99.5	94.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Aug. 7	E.	S.	17	....	44 33.1	44 53.5	45 13.0	45 31.9	45 53.5	46 12.5	46 33.8	46 45.5	46 55.8	....	....
		N.	17	....	51 9.5	50 45.4	50 22.4	50 3.0	49 40.2	49 17.8	48 56.4	48 45.8	48 35.2	....	....
	W.	N.	19	....	21 15.6	21 41.5	22 1.0	22 22.4	22 46.0	23 7.0	23 28.1	23 38.3	23 49.6	....	....
		S.	19	....	27 53.1	27 29.8	27 10.4	26 51.5	26 31.1	26 9.9	25 50.8	25 40.5	25 30.2	....	....
7	E.	N.	17 25 51.1	26 5.2	26 18.0	26 31.1	26 45.7	....	27 12.2	27 26.3	27 41.2	....	....	....	....
		S.	17 31 18.8	31 2.6	30 48.2	30 34.7	30 21.2	....	29 51.6	29 37.4	29 23.0	....	....	....	....
	W.	S.	19 50 8.3	50 23.7	50 37.4	50 52.2	51 6.1	....	51 34.8	51 48.9	52 3.5	....	....	....	....
		N.	19 55 35.2	55 20.6	55 7.1	54 53.8	54 40.3	....	54 13.3	53 59.5	53 45.0	....	....	....	....
7	E.	N.	18	....	9 46.9	....	....	....	10 52.4	11 8.0	11 25.1	11 33.5	11 42.7	....	....
		S.	18	....	15 12.0	....	....	....	14 2.6	13 46.0	13 27.7	13 20.3	13 12.2	....	....
	W.	S.	20	....	9 18.4	....	....	....	10 29.8	10 46.8	11 5.2	11 14.1	11 22.6	....	....
		N.	20	....	14 46.8	....	....	....	13 41.9	13 26.0	13 8.6	13 0.1	12 52.8	....	....
7	E.	S.	0	....	....	....	....	....	13 12.4	14 4.9	....	....	15 41.6	16 10.9	16 33.3
		N.	0	....	....	....	....	....	24 48.2	23 15.7	....	....	20 35.6	20 0.1	19 28.3
	W.	N.	0	....	....	....	....	....	44 45.8	46 21.0	....	....	48 50.0	49 32.5	50 3.9
		S.	0	....	....	....	....	....	56 16.3	55 23.4	....	....	53 47.4	53 20.4	52 51.1
7	E.	N.	23 45 19.4	45 36.3	45 51.4	46 6.5	46 21.5	46 38.7	46 53.6	....	47 27.0	....	....	....	....
		S.	23 51 43.1	51 24.3	51 7.2	50 51.2	50 34.3	50 16.5	50 0.2	....	49 27.0	....	....	....	....
	W.	S.	1 48 47.4	49 5.0	49 22.9	49 39.6	49 54.5	50 12.8	50 30.4	....	51 3.5	....	....	....	....
		N.	1 55 10.1	54 53.6	54 38.9	54 23.8	54 9.0	53 51.1	53 34.7	....	53 2.0	....	....	....	....
7	E.	N.	2	....	10 29.1	10 50.3	11 11.9	11 34.7	11 56.8	12 16.4	12 41.5	12 50.9	13 1.4	....	....
		S.	2	....	18 0.7	17 37.3	17 10.1	16 45.4	16 19.6	15 57.8	15 30.6	15 20.0	15 9.3	....	....
	W.	S.	3	....	37 20.0	37 41.6	38 5.5	38 33.7	38 56.9	39 21.2	39 46.8	39 59.4	40 11.3	....	....
		N.	3	....	44 49.1	44 28.4	44 7.5	43 45.1	43 23.2	43 1.3	42 38.2	42 28.0	42 17.2	....	....
12	E.	S.	0	....	....	....	....	12 23.0	13 11.6	14 2.0	14 51.3	15 15.2	15 43.3	16 11.0	16 36.8
		N.	0	....	....	....	....	26 47.0	24 41.3	23 8.2	21 43.5	21 6.3	20 29.4	19 59.4	19 23.7
	W.	N.	0	....	....	....	....	42 39.4	44 33.6	46 9.5	47 35.6	48 9.3	48 47.4	49 26.5	49 53.9
		S.	0	....	....	....	....	56 58.9	56 10.1	55 20.0	54 28.7	54 5.0	53 41.3	53 11.9	52 46.9
12	E.	N.	23 45 15.4	45 32.3	45 48.3	46 2.5	46 18.7	46 35.9	46 49.4	47 5.7	47 22.7	....	....	....	....
		S.	23 51 38.4	51 20.5	51 2.9	50 46.8	50 30.4	50 12.2	49 56.0	49 40.0	49 22.2	....	....	....	....
	W.	S.	1 48 44.3	49 0.8	49 16.5	49 33.5	49 51.3	50 8.4	50 25.4	50 41.9	51 0.1	....	....	....	....
		N.	1 55 6.7	54 48.9	54 33.1	54 18.2	54 3.8	53 45.3	53 31.4	53 14.9	52 57.5	....	....	....	....
12	E.	S.	1 20 2.4	20 25.7	20 50.4	21 16.9	21 39.2	22 2.3	22 30.0	22 51.4	23 20.0	....	....	....	....
		N.	1 30 2.6	29 32.5	29 3.7	28 30.9	28 3.4	27 36.6	27 7.6	26 38.9	26 10.4	....	....	....	....
	W.	N.	2 37 20.3	37 51.7	38 21.5	38 53.8	39 21.8	39 47.8	40 18.6	40 44.9	41 13.1	....	....	....	....
		S.	2 47 22.4	46 57.0	46 33.5	46 7.8	45 43.8	45 21.5	44 55.4	44 31.0	44 5.4	....	....	....	....
12	E.	S.	1 20 11.1	20 35.4	21 0.0	21 26.8	21 51.9	22 12.9	22 39.4	23 4.0	23 29.9	....	....	....	....
		N.	1 30 15.5	29 47.0	29 17.8	28 43.9	28 15.4	27 49.1	27 18.5	26 49.4	26 23.5	....	....	....	....
	W.	N.	2 37 8.4	37 41.6	38 9.7	38 41.3	39 10.4	39 36.6	40 6.9	40 33.9	41 1.7	....	....	....	....
		S.	2 47 13.3	46 47.4	46 23.9	45 58.0	45 34.0	45 11.2	44 45.4	44 21.5	43 51.9	....	....	....	....
12	E.	N.	2	....	10 24.2	10 45.4	11 8.1	11 29.6	11 50.4	12 12.4	12 37.1	12 47.8	12 57.8	13 11.5	13 24.2
		S.	2	....	17 56.3	17 31.2	17 5.9	16 41.9	16 17.1	15 53.5	15 28.2	15 15.3	15 4.3	14 52.9	14 39.4
	W.	S.	3	....	37 13.2	37 38.5	38 3.2	38 28.1	38 51.8	39 16.5	39 42.3	39 53.5	40 4.3	40 17.7	40 30.3
		N.	3	....	44 45.8	44 25.1	44 3.6	43 41.3	43 19.9	42 56.9	42 33.5	42 24.4	42 13.7	41 59.4	41 50.4
21	E.	N.	16	....	....	32 40.0	32 53.4	33 6.2	33 18.4	33 31.1	33 44.2	....	....	....	....
		S.	16	....	....	36 25.8	36 13.0	35 59.7	35 46.7	35 33.6	35 20.5	....	....	....	....
	W.	S.	19	....	....	7 38.0	7 50.3	8 3.7	8 16.3	8 29.9	8 43.7	....	....	....	....
		N.	19	....	....	11 23.3	11 9.1	10 56.7	10 44.7	10 32.4	10 19.3	....	....	....	....
21	E.	N.	17	....	44 21.0	44 40.8	44 58.3	45 19.3	45 40.7	45 58.5	46 20.0	46 29.4	....	....	....
		S.	17	....	51 3.9	50 41.8	50 21.0	49 57.8	49 37.1	49 15.4	48 52.4	48 43.0	....	....	....
	W.	S.	19	....	20 57.9	21 22.5	21 43.9	22 5.3	22 27.0	22 49.0	23 10.8	23 21.4	....	....	....
		N.	19	....	27 44.2	27 23.2	27 4.8	26 44.3	26 24.8	26 5.4	25 43.7	25 34.3	....	....	....
21	E.	S.	17 25 43.3	25 57.8	26 11.0	26 24.6	26 38.1	26 52.6	27 6.2	27 20.0	27 33.9	....	....	....	....
		N.	17 31 5.5	30 50.5	30 35.4	30 20.7	30 5.1	29 51.4	29 36.8	29 22.7	29 8.0	....	....	....	....
	W.	N.	19 49 58.6	50 13.7	50 28.7	50 43.2	50 58.6	51 12.5	51 26.8	51 41.7	51 55.0	....	....	....	....
		S.	19 55 21.8	55 6.7	54 52.4	54 40.1	54 24.2	54 11.6	53 58.3	53 43.6	53 30.7	....	....	....	....
21	E.	S.	18	....	9 40.7	9 55.8	10 13.4	10 29.4	10 47.5	11 2.7	11 19.8	11 28.0	11 35.6	....	....
		N.	18	....	14 59.9	14 41.4	14 23.6	14 7.6	13 48.4	13 31.0	13 13.0	13 5.5	12 56.8	....	....
	W.	N.	20	....	9 11.6	9 30.3	9 48.2	10 4.3	10 23.9	10 41.0	10 57.9	11 7.2	11 14.8	....	....
		S.	20	....	14 32.3	14 16.1	13 59.1	13 42.0	13 24.8	13 8.2	12 51.9	12 44.1	12 36.2	....	....
22	E.	S.	15 43 41.2	43 52.9	44 5.1	44 17.1	44 29.1	44 40.8	44 52.7	45 4.8	45 16.7	....	....	....	....
		N.	15 48 14.2	48 1.6	47 48.8	47 36.9	47 23.7	47 12.3	46 59.6	46 47.5	46 35.2	....	....	....	....
	W.	N.	18 33 15.0	33 27.0	33 39.3	33 52.0	34 4.4	34 15.9	34 28.9	34 41.3	34 53.4	....	....	....	....
		S.	18 37 49.2	37 37.2	37 24.9	37 13.5	37 0.6	36 50.4	36 37.3	36 26.0	36 14.0	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ' "	"	° ' "		
B. A. C. 6365.	89.5	83.7	−1.219	−0.913	+38 15 52.07	−21.16	+38 15 30.91	T.	Good seeing.
	95.4	81.7							
	99.2	96.0	−0.531						Good seeing.
	101.6	96.3							
ζ' Lyræ........	90.0	81.6	-0.794	0.808	37 29 20.75	−21.19	37 28 59.56	T.	Good seeing.
	88.5	84.2							
	104.5	96.6	−0.769						Good seeing.
	104.7	100.3							
θ Lyræ........	96.8	81.5	−1.288	−0.996	37 55 54.76	−21.76	37 55 33.00	T.	Good seeing.
	93.3	88.0							
	106.4	99.6	−0.631						Tolerable seeing; not well defined.
	105.5	102.2							
32 Andromedæ .	125.6	116.4	−0.988	−0.942	38 49 7.41	- 9.70	38 48 57.71	I.	Diffuse image; somewhat unsteady.
	122.7	116.1							
	122.8	115.0	−0.838						Better seeing.
	122.4	116.8							
μ Andromedæ .	125.2	119.6	−0.900	−0.894	37 52 1.02	− 8.84	37 51 52.18	I.	Fair image; somewhat unsteady.
	126.2	117.4							
	128.6	121.0	−0.850						Fair seeing.
	128.8	122.8							
ρ Persei.......	131.2	122.0	−1.150	−0.912	38 23 8.12	+ 0.89	38 23 9.01	I.	Fair seeing.
	132.0	122.8							
	132.0	124.0	−0.631						Very faint.
	127.7	125.6							
32 Andromedæ .	112.4	110.8	−0.500	−0.479	38 49 9.10	−10.94	38 48 58.16	I.	Good seeing.
	116.0	109.6							
	116.4	109.6	−0.425						Good seeing.
	114.0	114.0							
μ Andromedæ .	113.6	108.4	−0.400	-0.385	37 52 2.16	−10.01	37 51 52.15	I.	Good seeing.
	112.0	110.8							
	116.8	115.6	−0.350						Good seeing.
	119.2	114.8							
59 Andromedæ .	114.0	114.0	−0.425	−0.489	38 29 15.43	− 3.94	38 29 11.49	I.	Good seeing.
	119.2	112.4							
	121.6	116.0	−0.525						Exceedingly faint.
	120.0	117.2							
B. A. C. 662..	114.0	114.0	−0.425	−0.489	38 29 29.21	− 3.94	38 29 25.27	I.	Good seeing.
	119.2	112.4							
	121.6	116.0	−0.525						Exceedingly faint.
	120.0	117.2							
ρ Persei.......	121.2	114.4	−0.650	−0.438	38 23 8.70	+ 0.33	38 23 9.03	I.	Good seeing.
	120.0	116.4							
	118.0	116.0	−0.200						Good seeing.
	117.2	116.0							
θ Herculis.....	46.8	51.2	+0.750	+0.650	37 16 22.46	−21.87	37 16 0.59	T.	Good seeing.
	48.9	56.5							
	75.7	77.5	+0.488						Diffuse.
	74.0	80.0							
B. A. C. 6365.	59.6	65.6	+0.813	+0.647	38 15 56.03	−24.03	38 15 32.00	T.	Good seeing; not quite steady.
	61.4	68.4							
	75.6	78.4	+0.413						Tolerable seeing.
	76.2	80.0							
ζ' Lyræ........	58.6	63.2	+0.631	+0.556	37 29 23.56	−24.09	37 28 59.47	T.	Good seeing.
	59.5	65.0							
	77.0	81.2	+0.431						Diffuse.
	78.6	81.3							
θ Lyræ........	65.6	70.0	+0.556	+0.407	37 55 57.89	−25.00	37 55 32.89	T.	Tolerable seeing; somewhat diffuse.
	67.8	72.3							
	80.5	81.2	+0.219						Fair seeing.
	80.8	83.6							
π Herculis.....	64.8	75.2	+0.475	+0.331	+36 56 50.17	−19.80	+36 56 30.37	T.	Good seeing; good image.
	73.2	70.4							
	96.8	93.6	+0.163						Good seeing; good image.
	93.5	99.3							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Aug. 22	E.	N.	15	57 5.3	57 19.0	57 32.3	57 45.1	57 58.5	58 11.5	58 25.4	58 38.8	....	....	....	....
		S.	16	1 57.6	1 43.4	1 28.3	1 15.4	1 1.2	0 48.2	0 33.9	0 19.3	....	....	....	....
	W.	S.	18	24 53.0	25 7.6	25 21.3	25 34.4	25 48.6	26 1.7	26 15.8	26 30.0	....	....	....	....
		N.	18	29 43.3	29 30.1	29 16.9	29 4.1	28 50.2	28 36.9	28 24.1	28 9.5	....	....	....	....
22	E.	S.	16 32 4.0	32 16.8	32 29.8	32 42.5	32 56.4	33 8.1	33 21.5	33 35.2	33 48.3	....	....	....	....
		N.	16 37 3.9	36 50.0	36 36.1	36 22.3	36 8.5	35 55.6	35 42.1	35 28.5	35 14.7	....	....	....	....
	W.	N.	19 6 57.1	7 11.2	7 26.2	7 39.3	7 53.9	8 6.3	8 19.7	8 33.5	8 46.3	....	....	....	....
		S.	19 11 58.2	11 45.6	11 33.2	11 20.4	11 5.6	10 53.6	10 40.2	10 27.5	10 14.4	....	....	....	....
22	E.	S.	17	....	44 24.1	44 44.3	45 5.2	45 23.9	45 45.1	46 5.1	46 25.8	46 34.7	46 45.9	....	....
		N.	17	....	50 59.6	50 36.7	50 12.0	49 52.2	49 28.7	49 6.8	48 45.8	48 35.3	48 25.7	....	....
	W.	N.	19	....	21 2.1	21 24.9	21 48.8	22 9.8	22 32.2	22 54.4	23 15.9	23 25.2	23 36.4	....	....
		S.	19	....	27 39.9	27 18.6	26 57.0	26 38.9	26 18.2	25 57.3	25 38.2	25 28.2	25 17.6	....	....
22	E.	N.	17 25 40.3	25 54.8	26 8.7	26 21.7	26 34.0	26 48.9	27 2.5	27 16.3	27 30.4	....	....	....	....
		S.	17 31 7.9	30 53.0	30 38.3	30 23.1	30 9.7	29 55.9	29 41.7	29 27.2	29 12.3	....	....	....	....
	W.	S.	19 49 55.4	50 10.0	50 25.2	50 40.0	50 53.4	51 7.8	51 21.1	51 36.0	51 51.1	....	....	....	....
		N.	19 55 21.7	55 8.4	54 53.9	54 40.4	54 26.9	54 13.7	54 0.8	53 46.4	53 32.0	....	....	....	....
22	E.	N.	18	....	9 36.4	....	10 9.2	10 25.4	10 41.2	10 57.5	....	....	11 31.4	....	....
		S.	18	....	15 3.3	....	14 27.9	14 10.2	13 53.6	13 36.5	....	....	13 1.7	....	....
	W.	S.	20	....	9 8.5	....	9 42.7	10 0.3	10 17.2	10 34.4	....	....	11 9.6	....	....
		N.	20	....	14 33.7	....	14 1.6	13 44.7	13 29.2	13 12.6	....	....	12 38.3	....	....
Sept. 1	E.	N.	15 43 30.5	43 42.1	43 54.0	44 6.0	44 17.0	44 28.8	44 40.5	44 52.3	45 4.4	....	....	....	....
		S.	15 48 10.0	47 57.4	47 45.3	47 32.7	47 21.1	47 8.9	46 56.9	46 44.9	46 32.6	....	....	....	....
	W.	S.	18 33 5.1	33 17.5	33 29.8	33 42.5	33 54.0	34 6.8	34 17.6	34 29.6	34 42.1	....	....	....	....
		N.	18 37 43.9	37 31.8	37 19.7	37 8.2	36 56.4	36 44.1	36 33.5	36 21.6	36 9.4	....	....	....	....
1	E.	S.	17	....	44 18.5	44 37.0	44 58.9	45 18.4	45 37.2	45 57.3	46 18.5	46 27.7	....	....	....
		N.	17	....	50 52.0	50 29.8	50 5.2	49 45.4	49 22.4	49 0.2	48 39.3	48 30.2	....	....	....
	W.	N.	19	....	20 54.6	21 17.9	21 40.6	22 2.8	22 25.2	22 46.3	23 7.5	23 19.0	....	....	....
		S.	19	....	27 30.1	27 10.9	26 49.4	26 30.8	26 9.6	25 49.4	25 27.8	25 19.4	....	....	....
1	E.	N.	17 25 33.2	....	26 1.0	....	26 28.7	26 42.2	26 55.4	27 9.6	27 23.4	....	....	....	....
		S.	17 31 1.4	....	30 31.4	....	30 3.4	29 48.6	29 34.8	29 20.9	29 5.6	....	....	....	....
	W.	S.	19 49 47.2	....	50 17.6	....	50 45.6	51 0.0	51 14.6	51 27.8	51 43.0	....	....	....	....
		N.	19 55 14.8	....	54 46.2	....	54 19.4	54 5.9	53 52.1	53 38.6	53 24.5	....	....	....	....
1	E.	N.	18	....	9 30.4	9 46.7	10 3.1	10 19.7	10 35.6	10 52.3	11 9.3	....	....	....	....
		S.	18	....	14 56.6	14 38.3	14 22.1	14 4.3	13 47.8	13 29.7	13 13.0	....	....	....	....
	W.	S.	20	....	8 58.3	9 17.0	9 34.7	9 51.9	10 9.3	10 26.6	10 44.9	....	....	....	....
		N.	20	....	14 26.2	14 9.1	13 53.5	13 37.3	13 21.2	13 4.4	12 47.8	....	....	....	....
1	E.	N.	18	....	....	....	57 26.1	57 45.4	58 3.6	58 22.9	58 42.6	58 51.6	59 0.8	59 11.4	59 21.7
		S.	19	....	....	....	2 26.8	2 5.8	1 46.2	1 26.8	1 6.2	0 55.8	0 46.4	0 36.1	0 24.5
	W.	S.	20	....	....	....	40 13.8	40 34.8	40 54.0	41 16.6	41 36.6	41 46.3	41 56.2	42 6.9	42 18.0
		N.	20	....	....	....	45 16.0	44 56.6	44 38.3	44 19.3	44 0.1	43 51.4	43 41.7	43 29.2	43 20.2
3	E.	N.	15	....	43 52.2	44 4.7	44 15.8	44 27.9	44 39.2	44 50.3	....	....	....	....	....
		S.	15	....	47 43.6	47 30.7	47 19.5	47 7.5	46 55.5	46 43.3	....	....	....	....	....
	W.	S.	18	....	33 28.0	33 40.8	33 52.9	34 4.8	34 17.3	34 29.1	....	....	....	....	....
		N.	18	....	37 17.6	37 5.6	36 54.8	36 43.4	36 31.3	36 18.4	....	....	....	....	....
3	E.	N.	17	....	44 12.7	44 32.1	44 50.8	45 10.4	45 30.5	45 50.6	46 11.0	....	....	....	....
		S.	17	....	50 55.4	50 33.3	50 10.9	49 49.6	49 27.4	49 6.7	48 43.6	....	....	....	....
	W.	S.	19	....	20 45.7	21 9.4	21 31.4	21 53.8	22 15.5	22 37.7	22 59.5	....	....	....	....
		N.	19	....	27 31.6	27 10.8	26 52.7	26 31.0	26 12.3	25 51.8	25 32.4	....	....	....	....
3	E.	S.	17 25 34.6	25 48.1	26 2.9	26 16.0	26 30.8	26 44.4	26 57.9	27 12.6	....	....	....	....	....
		N.	17 30 57.0	30 42.6	30 26.9	30 11.7	29 56.5	29 43.0	29 28.4	29 13.5	....	....	....	....	....
	W.	N.	19 49 47.2	50 1.1	50 16.9	50 31.7	50 47.4	51 0.6	51 16.4	51 30.7	....	....	....	....	....
		S.	19 55 9.1	54 55.6	54 42.5	54 28.7	54 13.7	54 0.9	53 46.4	53 32.8	....	....	....	....	....
3	E.	S.	18 8 57.5	9 14.2	9 32.0	9 47.7	10 5.4	10 19.6	10 37.5	10 54.8	11 11.6	....	....	....	....
		N.	18 15 28.1	15 11.9	14 51.5	14 32.8	14 14.8	13 57.8	13 40.7	13 21.4	13 6.9	....	....	....	....
	W.	N.	20 8 25.0	8 41.4	9 0.4	9 17.9	9 36.7	9 52.7	10 12.0	10 29.2	10 45.8	....	....	....	....
		S.	20 14 54.6	14 37.6	14 21.0	14 5.0	13 47.0	13 31.7	13 14.6	12 57.7	12 41.4	....	....	....	....
3	E.	N.	18	....	56 46.6	57 5.9	57 24.7	57 43.5	58 2.4	58 22.1	58 40.3	58 49.4	58 59.4	....	....
		S.	19	....	3 5.1	2 44.4	2 23.6	2 5.4	1 44.4	1 24.4	1 3.1	0 54.1	0 43.7	....	....
	W.	S.	20	....	39 32.0	39 50.4	40 12.1	40 32.6	40 52.5	41 13.8	41 33.7	41 43.9	41 54.3	....	....
		N.	20	....	45 49.8	45 31.3	45 14.0	44 55.9	44 36.4	44 16.8	43 57.0	43 47.7	43 38.9	....	....
3	E.	N.	1 19 44.2	20 7.8	....	....	....	....	22 9.1	22 34.1	22 59.5	....	....	....	....
		S.	1 29 56.2	29 25.4	....	....	....	....	27 2.4	26 34.2	26 8.2	....	....	....	....
	W.	S.	2 36 57.7	37 27.4	....	....	....	....	39 51.2	40 18.0	40 47.3	....	....	....	....
		N.	2 47 7.3	46 44.9	....	....	....	....	44 44.8	44 20.4	43 53.5	....	....	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ' "	"	° ' "		
e Herculis.....	73.2	71.2	+0.525	+0.378	+37 25 13.10	−20.05	+37 24 53.05	T.	Good seeing; faint.
	69.2	79.6							
	90.4	96.2	+0.200						Good seeing; good image.
	96.1	93.5							
θ Herculis.....	74.0	82.0	+0.300	+0.204	37 16 22.08	−22.20	37 15 59.88	T.	Good seeing; good image.
	81.6	78.4							
	101.2	98.6	+0.094						Good seeing; good image.
	99.1	103.2							
B. A. C. 6365..	82.0	93.9	+0.544	+0.362	38 15 56.04	−24.23	38 15 31.81	T.	Good seeing; steady.
	91.6	88.4							
	103.0	101.2	+0.150						Good seeing; steady.
	101.4	105.6							
ζ′ Lyræ........	90.6	81.4	+0.044	+0.055	37 29 24.66	−24.29	37 29 0.37	T.	Good seeing; good image.
	82.0	91.9							
	104.3	106.9	+0.063						Good seeing; good image.
	107.6	106.0							
θ Lyræ........	92.4	90.8	+0.325	+0.272	37 55 58.68	−25.23	37 55 33.45	T.	Good seeing; steady; well defined.
	89.2	96.0							
	105.9	109.3	+0.200						Good seeing; steady; well defined.
	108.5	108.3							
π Herculis.....	127.2	124.8	+0.750	+0.691	36 56 50.47	−20.46	36 56 30.01	T.	Somewhat hazy; fair image.
	118.8	133.2							
	144.7	151.4	+0.625						Good seeing; fair image.
	147.6	150.9							
B. A. C. 6365..	138.8	146.8	+0.619	+0.538	38 15 57.22	−25.80	38 15 31.42	T.	Good seeing; fair image; nearly steady.
	143.7	145.6							
	154.6	156.0	+0.444						Good seeing; fair image; nearly steady.
	151.8	157.5							
ζ′ Lyræ........	139.2	142.0	+0.719	+0.556	37 29 26.36	−25.89	37 29 0.47	T.	Good seeing.
	138.0	146.7							
	156.8	158.7	+0.388						Good seeing.
	156.9	161.2							
θ Lyræ........	145.2	146.0	+0.375	+0.390	37 56 0.80	−27.14	37 55 33.66	T.	Good seeing; somewhat diffuse.
	144.0	149.2							
	158.8	160.4	+0.400						Good seeing; somewhat diffuse.
	158.4	163.2							
22 Cygni	149.4	152.4	+0.425	+0.415	38 11 2.78	−28.07	38 10 34.71	T.	Good seeing; fair image.
	150.2	154.0							
	162.0	163.2	+0.400						Good seeing; fair image.
	161.2	166.4							
π Herculis.....	136.6	131.3	+0.500	+0.485	36 56 50.50	−20.55	36 56 29.95	B.	Very light clouds; little unsteady.
	127.6	140.9							
	153.7	160.2	+0.469						Tolerable seeing; unsteady.
	159.2	160.2							
B. A. C. 6365..	149.9	148.1	+0.413	+0.434	38 15 58.54	−26.03	38 15 32.51	B.	Fair seeing; light clouds.
	147.9	156.3							
	161.7	166.0	+0.450						Fair seeing.
	164.1	167.0							
ζ′ Lyræ........	139.6	150.4	+0.550	+0.438	37 29 26.88	−26.14	37 29 0.74	B.	Fair seeing; light clouds.
	148.3	146.3							
	165.7	168.0	+0.325						Good seeing.
	167.4	170.3							
θ Lyræ........	150.9	158.0	+0.444	+0.447	37 56 0.73	−27.43	37 55 33.30	B.	Fair seeing.
	156.0	156.0							
	167.0	171.3	+0.450						Fair seeing.
	168.3	171.2							
22 Cygni	159.9	160.9	+0.388	+0.479	38 11 3.10	−28.40	38 10 34.70	B.	Good seeing.
	159.8	165.0							
	169.6	172.3	+0.569						Fair seeing.
	168.9	175.3							
59 Andromedæ .	185.5	186.8	+0.656	+0.508	+38 29 19.90	− 8.49	+38 29 11.41	T.	Poor seeing; steady; at times invisible; light clouds.
	183.2	192.4							
	189.9	194.9	+0.369						Poor seeing; steady; at times invisible; light clouds.
	193.1	194.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Sept. 3	E.	S.	2	....	10 15.6	10 37.2	10 59.7	11 19.8	11 44.3	12 7.6	12 28.9	12 40.4	12 51.0	13 3.0	13 13.9
		N.	2	....	17 39.0	17 12.4	16 45.0	16 23.3	15 55.7	15 33.1	15 7.4	14 55.8	14 45.0	14 33.1	14 21.5
	W.	N.	3	....	37 2.1	37 25.0	37 53.4	38 16.6	38 43.4	39 9.2	39 34.4	39 44.8	39 54.2	40 7.0	40 20.3
		S.	3	....	44 22.9	44 1.4	43 38.8	43 18.7	42 55.9	42 33.3	42 11.3	42 0.3	41 48.3	41 36.7	41 28.3
4	E.	N.	15 43 27.7	43 40.1	43 52.0	44 3.9	44 15.2	44 26.7	44 38.5	44 49.8	45 2.3	....	....	....	....
		S.	15 48 8.3	47 55.0	47 43.0	47 30.5	47 19.0	47 7.0	46 54.9	46 43.1	46 30.2	....	....	....	....
	W.	S.	18 33 2.8	33 15.8	33 27.9	33 39.8	33 51.4	34 4.4	34 16.0	34 27.5	34 39.7	....	....	....	....
		N.	18 37 41.5	37 29.1	37 17.6	37 5.7	36 53.8	36 42.5	36 30.8	36 19.8	36 6.9	....	....	....	....
4	E.	S.	17	....	44 15.3	44 35.8	44 56.7	45 15.9	45 35.8	45 56.5	46 16.3	46 26.5	46 36.9	....	....
		N.	17	....	50 50.3	50 27.6	50 4.9	49 44.0	49 21.4	48 59.1	48 37.7	48 27.6	48 16.4	....	....
	W.	N.	19	....	20 52.4	21 14.2	21 36.9	21 59.2	22 21.9	22 43.2	23 5.1	23 15.3	23 26.0	....	....
		S.	19	....	27 27.8	27 7.2	26 47.2	26 28.4	26 6.9	25 46.8	25 25.6	25 16.6	25 6.5	....	....
4	E.	N.	18	....	9 27.7	9 44.7	10 0.7	10 17.2	10 32.8	10 49.7	11 6.5	11 14.9	11 22.5	....	....
		S.	18	....	14 54.5	14 36.1	14 19.2	14 1.9	13 45.3	13 27.2	13 10.4	13 1.6	12 53.3	....	....
	W.	S.	20	....	8 56.9	9 14.4	9 30.9	9 48.5	10 6.4	10 24.3	10 41.8	10 49.8	10 58.2	....	....
		N.	20	....	14 23.3	14 6.7	13 51.0	13 34.8	13 18.5	13 2.1	12 45.2	12 37.0	12 29.0	....	....
4	E.	N.	18	....	....	....	57 23.7	57 43.0	58 1.7	....	58 40.6	58 49.4	58 59.7	....	....
		S.	19	....	....	....	2 25.0	2 4.3	1 44.2	....	1 3.5	0 53.9	0 44.5	....	....
	W.	S.	20	....	....	....	40 11.2	40 32.6	40 51.9	....	41 33.9	41 43.7	41 52.8	....	....
		N.	20	....	....	....	45 12.2	44 55.0	44 36.2	....	43 57.2	43 47.9	43 38.8	....	....
5	E.	N.	15 43 28.0	43 39.8	43 51.8	44 3.4	44 14.7	44 26.5	44 38.0	44 49.6	45 2.0	....	....	....	....
		S.	15 48 7.9	47 54.6	47 41.7	47 30.2	47 18.2	47 5.5	46 53.6	46 41.6	46 30.0	....	....	....	....
	W.	S.	18 33 3.1	33 15.3	33 27.0	33 39.6	33 51.8	34 4.2	34 15.9	34 27.0	34 39.8	....	....	....	....
		N.	18 37 40.5	37 28.0	37 16.4	37 4.2	36 52.9	36 41.3	36 30.0	36 18.5	36 6.0	....	....	....	....
5	E.	S.	16	....	32 21.0	32 33.5	32 46.4	....	33 12.4	33 25.2	33 37.6	33 44.3	....	....	....
		N.	16	....	36 25.5	36 12.2	35 58.0	....	35 31.4	35 18.3	35 5.3	34 59.3	....	....	....
	W.	N.	19	....	7 15.4	7 28.9	7 42.4	....	8 7.5	8 22.0	8 35.2	8 42.0	....	....	....
		S.	19	....	11 21.1	11 7.8	10 54.5	....	10 29.4	10 16.1	10 3.6	9 57.9	....	....	....
5	E.	S.	17	....	44 12.8	44 34.3	44 55.8	45 13.4	45 34.0	45 54.6	46 15.3	46 25.6	46 35.4	....	....
		N.	17	....	50 50.6	50 26.5	50 3.1	49 42.4	49 19.6	48 58.5	48 36.7	48 26.2	48 15.3	....	....
	W.	N.	19	....	20 52.0	21 14.4	21 37.3	21 58.3	22 19.5	22 41.4	23 2.8	23 14.0	23 25.4	....	....
		S.	19	....	27 27.0	27 6.7	26 45.4	26 27.3	26 5.5	25 45.9	25 25.0	25 15.9	25 5.3	....	....
5	E.	N.	17	....	25 57.9	....	26 24.3	26 38.3	26 52.0	27 5.9	27 19.7	27 27.0	27 33.8	....	....
		S.	17	....	30 28.8	....	30 0.1	29 45.9	29 31.2	29 16.6	29 2.4	28 56.0	28 49.4	....	....
	W.	S.	19	....	50 13.3	....	50 43.3	50 58.2	51 10.9	51 26.4	51 39.7	51 45.8	51 53.3	....	....
		N.	19	....	54 42.5	....	54 16.1	54 2.3	53 49.0	53 34.9	53 21.5	53 15.0	53 8.0	....	....
5	E.	N.	18	....	9 26.5	9 41.9	9 59.4	10 16.1	10 31.4	10 47.4	11 4.9	11 13.2	11 20.5	....	....
		S.	18	....	14 51.6	14 34.6	14 16.9	13 58.9	13 43.0	13 26.4	13 8.3	12 59.0	12 49.7	....	....
	W.	S.	20	....	8 56.1	9 14.0	9 29.9	9 48.5	10 5.3	10 22.7	10 40.7	10 50.0	10 57.6	....	....
		N.	20	....	14 21.4	14 4.9	13 48.6	13 33.3	13 17.0	13 1.4	12 45.4	12 36.7	12 28.4	....	....
5	E.	N.	18	....	56 45.1	57 4.8	....	57 42.0	58 0.6	58 19.4	58 38.3	58 47.7	58 57.1	....	....
		S.	19	....	3 4.8	2 42.8	....	2 2.6	1 42.5	1 22.3	1 1.8	0 52.8	0 42.4	....	....
	W.	S.	20	....	39 29.5	39 53.3	....	40 31.4	40 52.2	41 12.6	41 32.7	41 43.0	41 52.8	....	....
		N.	20	....	45 49.4	45 30.0	....	44 53.4	44 33.9	44 15.4	43 56.0	43 46.5	43 37.9	....	....
5	E.	S.	2	....	10 14.8	10 37.1	11 0.0	11 20.8	11 44.0	12 6.6	12 27.2	12 41.2	12 51.2	13 0.7	13 13.9
		N.	2	....	17 36.9	17 10.3	16 44.2	16 20.2	15 55.4	15 30.2	15 7.2	14 54.7	14 43.6	14 30.0	14 18.4
	W.	N.	3	....	36 59.0	37 26.6	37 54.2	38 17.4	38 41.7	39 5.5	39 28.5	39 42.1	39 53.9	40 5.5	40 16.1
		S.	3	....	44 21.8	43 59.8	43 37.8	43 14.7	42 53.8	42 31.0	42 8.5	41 57.7	41 45.6	41 35.0	41 24.2
6	E.	N.	15 43 27.1	43 39.4	43 50.8	....	44 14.1	44 25.8	44 37.4	44 49.2	45 1.9	....	....	....	....
		S.	15 48 6.7	47 53.9	47 41.4	....	47 17.4	47 5.4	46 53.6	46 41.3	46 29.0	....	....	....	....
	W.	S.	18 33 0.9	33 13.8	33 26.1	....	33 50.0	34 2.3	34 14.0	34 26.2	34 38.5	....	....	....	....
		N.	18 37 39.6	37 27.6	37 15.4	....	36 52.9	36 40.9	36 30.4	36 17.6	36 5.5	....	....	....	....
6	E.	S.	17	....	44 14.3	44 34.5	44 54.8	45 13.5	45 34.6	45 55.5	46 15.1	46 25.1	46 35.0	....	....
		N.	17	....	50 48.9	50 26.8	50 2.7	49 42.0	49 19.2	48 57.3	48 36.3	48 26.5	48 14.9	....	....
	W.	N.	19	....	20 50.5	21 13.4	21 36.4	21 57.3	22 20.8	22 41.8	23 3.7	23 14.1	23 24.7	....	....
		S.	19	....	27 26.5	27 6.0	26 45.0	26 26.6	26 4.6	25 44.2	25 22.5	25 14.7	25 4.4	....	....
6	E.	N.	17	....	25 57.2	26 10.9	26 24.6	26 38.2	26 51.8	27 5.5	27 19.6	27 26.7	27 33.9	....	....
		S.	17	....	30 28.0	30 13.3	30 0.0	29 45.3	29 31.3	29 17.1	29 2.1	28 55.4	28 48.5	....	....
	W.	S.	19	....	50 12.9	50 27.8	50 41.9	50 55.8	51 10.4	51 23.6	51 38.5	51 45.9	51 51.7	....	....
		N.	19	....	54 42.6	54 28.7	54 15.3	54 0.5	53 48.4	53 34.9	53 20.5	53 14.0	53 6.8	....	....
6	E.	N.	18	....	9 27.1	9 43.7	9 58.9	10 16.0	10 31.2	10 48.3	11 5.2	11 13.6	11 21.0	....	....
		S.	18	....	14 53.7	14 35.5	14 18.9	14 0.9	13 43.3	13 26.3	13 8.2	13 1.0	12 53.0	....	....
	W.	S.	20	....	8 55.2	9 12.9	9 29.4	9 47.4	10 4.2	10 21.9	10 39.6	10 48.0	10 57.8	....	....
		N.	20	....	14 22.0	14 5.1	13 50.5	13 32.7	13 17.6	12 59.9	12 44.7	12 36.0	12 27.9	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ′ "	"	° ′ "		
ρ Persei.......	188.0	194.0	+0.513	+0.408	+38 23 12.01	− 3.20	+38 23 8.81	T.	Faint at times, then bright and diffuse; light clouds.
	190.8	193.0							
	194.7	195.3	+0.313						Faint at times, then bright and diffuse; light clouds.
	193.8	198.2							
π Herculis.....	137.9	140.5	+1.275	+1.057	36 56 51.03	−20.61	36 56 30.42	T.	Tolerable seeing; faint.
	129.9	147.7							
	150.7	161.3	+0.838						Good seeing; somewhat diffuse.
	156.0	158.8							
B. A. C. 6365.	146.0	157.2	+0.938	+0.913	38 15 58.51	−26.17	38.15 32.34	T.	Good seeing; steady; well defined.
	150.8	154.6							
	158.4	163.2	+0.875						Good seeing; steady; well defined.
	157.2	166.4							
θ Lyræ........	152.0	155.9	+0.875	+0.927	37 56 1.48	−27.59	37 55 33.89	T.	Good seeing; steady; tolerably well defined.
	150.0	160.1							
	159.2	168.0	+0.975						Good seeing; steady; tolerably well defined.
	161.2	168.0							
22 Cygni	156.4	160.6	+0.825	+0.834	38 11 3.77	−28.61	38 10 35.16	T.	Good seeing; poor lamp.
	155.0	164.0							
	162.2	170.0	+0.838						Good seeing; poor lamp.
	164.4	170.0							
π Herculis.....	150.6	150.0	+0.569	+0.478	36 56 50.62	−20.68	36 56 29.94	B.	Faint; steady; daylight; thin clouds.
	146.7	156.4							
	174.0	176.3	+0.394						Fair seeing.
	174.4	178.4							
θ Herculis.....	149.6	159.7	+0.663	+0.543	37 16 23.95	−23.67	37 16 0.28	B.	Thin clouds; faint; steady.
	155.6	156.1							
	176.6	181.2	+0.431						Fair seeing; little unsteady.
	178.8	181.1							
B. A. C. 6365.	168.5	173.0	+0.375	+0.389	38 15 57.70	−26.32	38 15 31.38	B.	Faint; steady; light clouds.
	171.8	173.3							
	178.7	183.2	+0.406						Faint; unsteady; thin clouds.
	180.7	182.7							
ζ′ Lyræ........	167.7	169.0	+0.400	+0.362	37 29 25.90	−26.42	37 28 59.48	B.	Faint; steady; light clouds.
	167.5	172.6							
	183.9	184.1	+0.325						Fair seeing.
	183.0	188.0							
θ Lyræ........	171.6	174.6	+0.400	+0.394	37 55 59.93	−27.77	37 55 32.16	B.	Fair seeing; very thin clouds.
	171.9	175.3							
	186.6	186.7	+0.394						Fair seeing; little unsteady.
	184.3	190.5							
22 Cygni	175.8	179.4	+0.369	+0.338	38 11 2.52	−28.82	38 10 33.70	B.	Good seeing.
	177.7	180.0							
	188.5	188.1	+0.313						Poor image; unsteady; thin clouds.
	186.7	192.1							
ρ Persei.......	210.8	212.6	−0.006	+0.046	38 23 12.38	− 3.44	38 23 8.94	T.	Poor seeing; very much diffuse; unsteady.
	213.0	211.1							
	214.7	215.2	+0.100						Poor seeing; very much diffuse; unsteady.
	215.1	216.2							
π Herculis.....	158.0	158.4	+0.844	+0.775	36 56 51.41	−20.75	36 56 30.66	T.	Good seeing; steady; well defined.
	153.0	166.1							
	179.8	185.4	+0.725						Good seeing; nearly steady; little diffuse.
	180.8	186.8							
B. A. C. 6365.	174.2	181.5	+0.756	+0.750	38 15 58.46	−26.48	38 15 31.98	T.	Good seeing; good image; steady.
	177.6	182.4							
	182.8	190.1	+0.756						Good seeing; good image; not quite steady.
	184.8	189.6							
ζ′ Lyræ........	171.2	176.4	+0.725	+0.700	37 29 27.06	−26.58	37 29 0.48	T.	Good seeing; good image; steady.
	173.7	180.1							
	186.8	190.0	+0.694						Good seeing; little unsteady.
	185.3	193.2							
θ Lyræ........	177.6	184.4	+0.725	+0.695	+37 56 1.56	−27.96	+37 55 33.60	T.	Good seeing; fair image; steady.
	179.2	184.0							
	187.9	191.6	+0.681						Good seeing; diffuse; not quite steady.
	186.8	194.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Sept. 6	E.	S.	18	....	....	....	57 28.3	....	58 6.0	58 24.8	58 43.6	58 52.8	59 2.8	59 13.3	....
		N.	19	....	....	....	2 17.7	....	1 36.9	1 16.7	0 57.4	0 48.2	0 36.3	0 25.9	....
	W.	N.	20	....	....	....	40 15.9	....	40 56.7	41 16.7	41 38.3	41 47.0	41 56.1	42 6.1	....
		S.	20	....	....	....	45 7.0	....	44 29.5	44 9.5	43 50.2	43 42.2	43 30.7	43 22.9	....
7	E.	S.	17	....	44 13.9	44 34.4	44 53.6	45 12.6	45 33.7	45 54.4	46 15.7	46 25.0	46 34.4	46 45.4	....
		N.	17	....	50 46.8	50 24.1	50 0.9	49 40.3	49 17.8	48 55.6	48 34.0	48 24.3	48 13.8	48 3.6	....
	W.	N.	19	....	20 50.5	21 14.1	21 36.5	21 57.7	22 19.1	22 41.9	23 3.2	23 12.6	23 23.5	23 33.6	....
		S.	19	....	27 26.0	27 5.4	26 44.4	26 26.7	26 4.7	25 44.5	25 24.0	25 14.0	25 3.6	24 53.7	....
7	E.	S.	18	....	56 46.9	57 7.0	57 27.5	57 44.4	58 4.0	58 22.1	58 41.3	58 51.3	59 0.5	....	....
		N.	19	....	3 0.4	2 38.8	2 17.8	1 57.3	1 36.2	1 15.2	0 55.9	0 46.0	0 35.7	....	....
	W.	N.	20	....	39 32.3	39 53.6	40 15.5	40 33.5	40 55.6	41 16.1	41 36.9	41 46.0	41 55.9	....	....
		S.	20	....	45 44.8	45 25.6	45 5.7	44 48.0	44 27.9	44 8.7	43 50.5	43 41.5	43 30.9	....	....
7	E.	S.	4	....	30 9.6	30 21.9	30 35.3	30 46.5	31 0.0	31 12.6	31 24.7	31 30.8	31 37.4	....	....
		N.	4	....	34 10.7	33 55.8	33 43.1	33 31.2	33 17.5	33 4.4	32 50.5	32 45.4	32 38.8	....	....
	W.	N.	7	....	8 30.7	8 45.3	8 58.8	9 10.7	9 24.5	9 37.1	9 49.6	9 56.4	10 2.1	....	....
		S.	7	....	12 31.3	12 17.9	12 5.4	11 53.1	11 39.8	11 26.8	11 14.6	11 9.1	11 2.9	....	....
9	E.	S.	18	....	....	....	0 19.2	0 48.6	1 20.3	1 52.9	....	2 43.8	....	3 18.0	3 35.0
		N.	18	....	....	....	9 10.6	8 29.4	7 49.9	7 8.9	....	6 11.6	....	5 29.9	5 14.2
	W.	N.	18	....	....	....	55 49.4	56 30.6	57 13.5	57 55.3	....	58 53.0	....	59 30.6	59 50.0
		S.	19	....	....	....	4 47.4	4 15.8	3 42.9	3 8.4	....	2 19.7	....	1 44.2	1 27.7
9	E.	N.	17	....	....	....	44 46.3	45 6.1	45 25.3	45 45.1	46 6.2	46 15.1	46 26.0	46 37.6	46 47.7
		S.	17	....	....	....	50 8.5	49 46.4	49 24.1	49 3.6	48 40.8	48 30.9	48 20.6	48 9.4	47 57.6
	W.	S.	19	....	....	....	21 26.9	21 49.7	22 12.9	22 33.8	22 55.8	23 5.7	23 15.9	23 27.5	23 39.0
		N.	19	....	....	....	26 49.2	26 30.1	26 10.0	25 49.9	25 27.3	25 17.0	25 8.4	24 57.9	24 47.5
9	E.	N.	2 9 24.7	9 45.7	10 8.3	10 30.2	10 51.6	11 13.0	11 35.4	11 57.0	12 19.1	12 29.4	12 41.0	....	....
		S.	2 18 29.1	18 2.8	17 36.2	17 11.0	16 45.7	16 20.5	15 56.6	15 33.9	15 10.4	14 58.7	14 47.0	....	....
	W.	S.	3 36 0.3	36 28.1	36 54.2	37 19.0	37 44.8	38 9.0	38 32.7	38 57.0	39 22.3	39 33.5	39 44.9	....	....
		N.	3 45 4.8	44 42.5	44 20.6	44 1.1	43 39.5	43 18.3	42 56.3	42 34.3	42 10.3	41 58.6	41 48.3	....	....
15	E.	S.	18	....	....	....	10 0.3	10 15.8	10 32.7	10 49.5	11 6.0	11 14.2	....	....	....
		N.	18	....	....	....	14 9.3	13 52.1	13 34.6	13 16.6	12 59.6	12 51.3	....	....	....
	W.	N.	20	....	....	....	9 31.7	9 47.9	10 6.2	10 23.4	10 40.1	10 48.9	....	....	....
		S.	20	....	....	....	13 39.0	13 24.6	13 7.0	12 50.5	12 33.4	12 25.9	....	....	....
16	E.	S.	18	....	....	....	0 16.2	0 46.5	1 19.1	1 50.7	2 25.6	2 42.3	2 58.3	3 16.1	3 33.7
		N.	18	....	....	....	9 6.0	8 23.7	7 40.3	7 0.0	6 22.3	6 2.4	5 45.1	5 25.6	5 6.7
	W.	N.	18	....	....	....	55 46.9	56 26.4	57 10.3	57 52.9	58 31.2	58 50.7	59 8.9	59 28.0	59 46.6
		S.	19	....	....	....	4 39.6	4 8.0	3 36.1	3 3.2	2 31.4	2 15.1	1 57.8	1 40.5	1 26.4
20	E.	S.	19	....	....	57 8.2	57 22.5	57 36.0	57 49.8	58 4.7	58 18.7	58 25.9	....	....	....
		N.	20	....	....	1 8.9	0 53.5	0 39.7	0 24.8	0 9.5	59 55.5	59 48.8	....	....	....
	W.	N.	22	....	....	18 6.7	18 20.6	18 34.8	18 50.0	19 3.9	19 19.0	19 26.3	....	....	....
		S.	22	....	....	22 6.6	21 52.4	21 38.8	21 23.9	21 9.7	20 56.1	20 49.7	....	....	....
20	E.	N.	20	....	....	....	30 11.0	30 28.0	30 45.8	31 1.6	31 19.0	31 27.4	31 35.3	31 45.5	31 54.3
		S.	20	....	....	....	34 40.6	34 22.9	34 4.8	33 47.0	33 28.8	33 20.3	33 10.7	33 0.6	32 51.8
	W.	S.	22	....	....	....	24 20.2	24 36.9	24 55.8	25 13.2	25 32.4	25 40.7	25 49.3	25 58.1	26 7.8
		N.	22	....	....	....	28 49.8	28 32.4	28 14.9	27 57.5	27 40.4	27 32.8	27 24.2	27 13.8	27 5.0
21	E.	N.	17	58 28.7	58 58.4	....	59 59.9	0 30.3	1 1.1	1 34.1	2 9.0	2 25.4	2 42.0	2 59.4	3 18.2
		S.	18	11 39.8	10 51.3	....	9 23.2	8 40.0	7 58.4	7 17.7	6 37.2	6 18.4	5 59.6	5 38.5	5 19.8
	W.	S.	18	53 12.0	53 56.7	....	55 26.9	56 10.3	56 50.7	57 32.3	58 13.0	58 32.0	58 51.4	59 10.4	59 31.9
		N.	19	6 19.8	5 50.3	....	4 49.0	4 18.8	3 46.4	3 15.0	2 41.8	2 24.8	2 8.9	1 51.7	1 33.5
24	E.	N.	2	....	52 8.7	52 23.7	52 38.1	52 52.9	53 7.5	53 22.9	53 38.8	53 46.3	53 53.0	....	....
		S.	2	....	57 5.4	56 49.2	56 33.7	56 17.5	56 2.4	55 45.6	55 30.5	55 22.0	55 15.5	....	....
	W.	S.	5	....	3 30.2	3 45.4	4 1.4	4 17.0	4 33.0	4 47.9	5 3.9	5 12.0	5 19.9	....	....
		N.	5	....	8 25.9	8 12.9	7 57.1	7 42.2	7 28.4	7 12.5	6 58.0	6 50.0	6 43.7	....	....
24	E.	S.	4	....	16 5.3	16 28.5	16 50.7	17 10.6	17 31.9	17 52.3	18 15.5	18 26.4	18 35.4	18 47.0	18 57.4
		N.	4	....	23 8.3	22 43.2	22 17.9	21 56.9	21 31.8	21 8.6	20 44.0	20 33.7	20 22.0	20 11.7	20 0.1
	W.	N.	5	....	46 38.1	47 4.3	47 28.3	47 51.4	48 15.4	48 38.1	49 3.0	49 12.0	49 24.8	49 35.6	49 46.6
		S.	5	....	53 41.0	53 19.1	52 57.6	52 37.7	52 14.9	51 53.2	51 32.0	51 21.6	51 11.3	51 0.1	50 50.0
24	E.	N.	4	....	29 58.8	30 10.6	30 23.5	30 36.6	30 48.8	31 1.0	....	....	....	....	....
		S.	4	....	34 4.5	33 52.1	33 38.8	33 25.9	33 13.4	33 0.5	....	....	....	....	....
	W.	S.	7	....	8 20.2	8 32.7	8 46.2	8 59.4	9 11.8	9 24.6	....	....	....	....	....
		N.	7	....	12 26.7	12 14.9	12 2.6	11 50.0	11 37.6	11 24.4	....	....	....	....	....
25	E.	S.	2	....	....	10 31.1	10 51.9	11 12.0	11 33.7	11 56.6	12 18.8	12 29.5	....	....	....
		N.	2	....	....	16 58.0	16 34.4	16 9.6	15 44.9	15 21.6	14 56.5	14 45.5	....	....	....
	W.	N.	3	....	....	37 15.4	37 41.0	38 3.8	38 29.6	38 54.6	39 17.7	39 29.3	....	....	....
		S.	3	....	....	43 48.4	43 26.8	43 6.0	42 43.0	42 20.3	41 57.4	41 46.0	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ' "	"	° ' "		
22 Cygni	183.8	185.7	+0.519	+0.552	+38 11 3.50	−29.04	+38 10 34.46	T.	Good seeing; somewhat diffuse.
	182.2	188.6							
	187.6	195.2	+0.600						Good seeing; somewhat diffuse; not quite steady.
	191.2	193.2							
B. A. C. 6365	154.4	165.2	+1.019	+1.008	38 15 58.08	−26.62	38 15 31.46	B.	Good seeing.
	157.8	163.3							
	169.1	176.9	+0.994						Good seeing.
	171.1	179.2							
22 Cygni	163.8	174.8	+1.169	+1.043	38 11 3.45	−29.25	38 10 34.20	B.	Good seeing.
	168.0	175.7							
	176.0	185.7	+0.925						Good seeing.
	179.1	184.2							
θ Aurigæ	192.4	199.3	+0.694	+0.798	37 11 58.78	+11.35	37 12 10.13	T.	Tolerable seeing; very much diffuse; light clouds.
	194.4	198.6							
	189.4	194.8	+0.938						Fair seeing; somewhat diffuse; not quite steady; hazy.
	186.0	195.6							
α Lyræ	178.7	188.5	+0.900	+0.831	38 40 58.55	−26.78	38 40 31.77	B.	1¼-inch aperture; very unsteady; light clouds.
	184.3	188.9							
	189.8	194.9	+0.775						Quite steady; clear.
	190.6	197.9							
B. A. C. 6365	175.3	182.3	+1.019	+0.944	38 15 58.31	−26.90	38 15 31.41	B.	Tolerable seeing; light clouds.
	177.9	187.2							
	192.2	198.9	+0.888						Fair seeing.
	192.9	200.4							
ρ Persei	208.0	211.4	+0.813	+0.700	38 23 12.72	− 4.08	38 23 8.64	B.	Tolerable seeing; image diffuse.
	209.6	219.2							
	226.9	228.9	+0.625						Image much diffuse.
	226.6	234.6							
θ Lyræ	158.9	167.5	+0.638	+0.731	37 56 2.13	−29.10	37 55 33.03	T.	Tolerable seeing; light haze.
	162.7	164.3							
	170.0	178.2	+0.819						Fair seeing; somewhat diffuse, but steady.
	172.4	177.3							
α Lyræ	148.0	166.2	+1.413	+1.308	38 40 59.02	−27.21	38 40 31.81	B.	Image diffuse, but steady.
	155.8	160.2							
	159.1	163.0	+1.181						Image much diffuse.
	155.2	170.2							
τ Cygni	201.9	213.5	+1.225	+1.188	37 33 18.33	−32.12	37 32 46.21	B.	Fair seeing.
	204.4	212.4							
	215.3	224.3	+1.225						Fair seeing.
	214.8	225.4							
72 Cygni	204.2	212.6	+1.263	+1.226	38 1 7.64	−31.91	38 0 35.73	B.	Fair seeing.
	203.6	215.4							
	214.8	225.2	+1.256						Fair seeing.
	215.5	225.2							
α Lyræ	187.6	192.0	+1.031	+1.116	38 40 59.20	−27.64	38 40 31.56	B.	Diffuse; steady; through clouds.
	186.9	199.0							
	190.8	202.8	+1.225						Much diffuse at times; steady; occasional thin clouds.
	193.8	201.4							
50 Persei	242.1	257.9	+1.538	+1.385	37 43 56.03	+ 0.34	37 43 56.37	T.	Good seeing; image diffuse; somewhat unsteady.
	244.0	252.8							
	241.6	250.0	+1.369						Good seeing; fair image; little unsteady.
	238.9	252.4							
μ Aurigæ	246.8	250.4	+0.950	+1.182	38 20 32.21	+ 7.45	38 20 39.66	T.	Good seeing; not quite steady; somewhat diffuse.
	242.0	253.6							
	239.2	252.7	+1.519						Good seeing; fair image; unsteady.
	241.3	252.1							
θ Aurigæ	241.7	253.3	+1.131	+1.274	37 11 58.85	+11.41	37 12 10.26	T.	Good seeing; not quite steady; somewhat diffuse.
	243.3	249.8							
	241.2	252.0	+1.556						Good seeing; not quite steady.
	239.0	253.1							
ρ Persei	223.9	240.0	+1.738	+1.704	+38 23 15.33	− 6.96	+38 23 8.37	B.	Fair seeing; little blurred.
	228.3	240.0							
	235.6	250.8	+1.800						Fair seeing.
	237.4	251.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Sept. 25	E.	N.	2 51 36.6	51 52.6	52 8.1	52 21.7	52 37.4	52 52.0	53 7.1	53 22.3	53 37.4	53 44.7	....	....	....
		S.	2 57 37.4	57 19.8	57 4.3	56 48.8	56 33.0	56 17.2	56 1.9	55 46.4	55 29.5	55 22.0	....	....	....
	W.	S.	5 2 57.0	3 14.8	3 30.5	3 46.4	4 1.5	4 17.5	4 32.7	4 49.3	5 5.0	5 12.6	....	....	....
		N.	5 8 55.4	8 41.3	8 26.4	8 12.1	7 57.1	7 41.9	7 26.9	7 10.8	6 55.9	6 48.8	....	....	....
25	E.	S.	4	....	16 3.4	16 26.3	16 47.1	17 7.0	17 29.4	17 51.8	18 14.3	18 23.8	18 34.0	....	....
		N.	4	....	23 6.4	22 41.0	22 17.1	21 53.8	21 30.4	21 6.8	20 43.8	20 31.9	20 20.7	....	....
	W.	N.	5	....	46 38.1	47 2.8	47 29.0	47 50.6	48 14.2	48 38.3	49 1.1	49 11.4	49 22.0	....	....
		S.	5	....	53 40.0	53 18.4	52 57.5	52 36.4	52 14.0	51 52.0	51 31.4	51 21.0	51 10.5	....	....
26	E.	S.	17 58 1.6	58 31.8	59 4.1	....	0 7.9	0 37.8	1 9.7	....	2 17.6	2 34.6	2 51.7	3 9.3	....
		N.	18 12 11.6	11 20.8	10 33.5	....	9 0.1	8 19.5	7 36.9	....	6 17.0	5 58.7	5 39.3	5 22.0	....
	W.	N.	18 52 31.1	53 21.1	54 9.6	....	55 41.2	56 23.0	57 7.3	....	58 28.4	58 46.0	59 4.3	59 23.7	....
		S.	19 6 40.4	6 10.4	5 39.0	....	4 36.0	4 6.6	3 32.9	....	2 27.2	2 11.0	1 52.8	1 35.0	....
26	E.	N.	19	....	56 46.0	56 59.7	57 14.0	57 29.9	57 42.8	57 56.4	58 10.4	58 17.0	58 24.4	....	....
		S.	20	....	1 24.4	1 10.0	0 53.6	0 41.0	0 26.6	0 11.5	59 56.7	59 49.7	59 41.7	....	....
	W.	S.	22	....	17 42.6	17 56.7	18 11.1	18 27.0	18 41.1	18 55.4	19 11.0	19 17.4	19 24.6	....	....
		N.	22	....	22 19.2	22 4.4	21 51.3	21 37.6	21 23.7	21 10.4	20 56.0	20 48.8	20.42.3	....	....
26	E.	S.	20	....	....	....	30 12.9	30 27.7	30 45.0	....	31 19.2	31 28.0	31 36.3	....	....
		N.	20	....	....	....	34 30.9	34 13.5	33 54.3	....	33 19.9	33 10.4	33 0.0	....	....
	W.	N.	22	....	....	....	24 19.9	24 36.8	24 56.0	....	25 33.0	25 41.6	25 49.7	....	....
		S.	22	....	....	....	28 40.6	28 24.0	28 6.6	....	27 30.8	27 22.8	27 14.5	....	....
26	E.	N.	20	48 19.0	48 31.3	48 43.0	48 56.0	49 8.2	49 21.1	....	....	....	....	....	....
		S.	20	52 49.8	52 36.4	52 24.5	52 11.5	51 57.7	51 45.6	....	....	....	....	....	....
	W.	S.	23	27 47.3	28 1.6	28 14.3	28 27.4	28 40.5	28 52.7	....	....	....	....	....	....
		N.	23	32 17.6	32 4.6	31 52.5	31 40.4	31 28.3	31 15.8	....	....	....	....	....	....
26	E.	N.	2	....	....	52 21.0	52 36.7	52 51.7	....	....	53 36.4	53 43.7	53 50.9	53 59.0	....
		S.	2	....	....	56 47.6	56 31.4	56 15.5	....	....	55 28.7	55 20.1	55 12.9	55 4.8	....
	W.	S.	5	....	....	3 44.5	3 59.7	4 15.9	....	....	5 3.1	5 11.4	5 19.4	5 27.5	....
		N.	5	....	....	8 11.3	7 54.9	7 41.0	....	....	6 55.5	6 50.5	6 41.0	6 32.6	....
27	E.	S.	17 58 1.6	58 31.7	59 3.4	59 35.8	0 8.0	0 36.9	1 10.4	1 43.5	2 17.4	2 32.8	2 49.9	3 7.2	3 24.3
		N.	18 12 13.9	11 23.0	10 35.7	9 47.1	9 2.0	8 22.2	7 38.0	6 55.6	6 17.3	5 59.3	5 40.5	5 21.7	5 3.0
	W.	N.	18 52 28.9	53 17.6	54 8.0	54 54.1	55 41.1	56 20.5	57 3.7	57 45.6	58 24.8	58 42.5	59 2.1	59 19.8	59 38.7
		S.	19 6 42.0	6 10.0	5 39.8	5 6.2	4 34.9	4 6.0	3 31.6	2 58.4	2 24.0	2 7.9	1 51.3	1 33.9	1 16.7
27	E.	S.	19	....	....	24 35.2	24 53.7	25 9.7	25 27.9	25 46.0	26 4.0	26 12.3	26 21.0	....	....
		N.	19	....	....	29 40.8	29 21.4	29 3.5	28 43.3	28 24.7	28 6.3	27 57.8	27 48.3	....	....
	W.	N.	21	....	....	15 38.1	15 57.9	16 15.7	16 35.2	16 54.3	17 12.7	17 21.4	17 30.8	....	....
		S.	21	....	....	20 43.0	20 24.3	20 8.4	19 49.6	19 32.2	19 13.8	19 5.5	18 56.5	....	....
27	E.	N.	20	48 18.3	48 31.3	48 43.7	48 56.1	49 8.5	49 20.1	49 32.9	49 45.7	49 51.9	49 58.1	....	....
		S.	20	52 48.6	52 35.3	52 23.1	52 9.9	51 57.1	51 44.5	51 31.5	51 18.5	51 12.6	51 6.5	....	....
	W.	S.	23	27 47.8	28 0.4	28 12.8	28 25.5	28 38.5	28 51.1	29 4.4	29 17.8	29 23.3	29 29.7	....	....
		N.	23	32 17.5	32 5.1	31 53.0	31 40.0	31 27.9	31 15.8	31 3.4	30 50.5	30 44.7	30 38.8	....	....
27	E.	S.	21	....	48 57.0	49 22.3	49 44.5	50 7.3	50 31.8	50 55.6	51 18.8	51 31.1	51 42.8	51 54.2	52 7.3
		N.	21	....	56 48.6	56 19.5	55 50.9	55 26.0	54 59.0	54 33.1	54 6.3	53 53.1	53 40.9	53 28.7	53 17.0
	W.	N.	23	....	10 5.9	10 34.2	11 1.4	11 27.9	11 55.0	12 21.5	12 46.5	12 59.0	13 11.8	13 25.1	13 37.1
		S.	23	....	17 54.4	17 30.6	17 7.1	16 44.7	16 21.3	15 56.5	15 33.1	15 21.7	15 9.5	14 57.8	14 45.6
28	E.	N.	18	....	....	....	....	0 24.7	0 56.2	1 27.3	2 1.2	2 18.0	2 34.6	2 51.9	3 11.6
		S.	18	....	....	....	....	8 33.0	7 51.3	7 10.4	6 31.4	6 11.5	5 51.7	5 32.0	5 13.1
	W.	S.	18	....	....	....	....	56 6.5	56 47.8	57 26.7	58 8.0	58 26.6	58 46.6	59 5.9	59 23.7
		N.	19	....	....	....	....	4 13.5	3 42.2	3 10.4	2 37.8	2 21.7	2 3.8	1 44.7	1 27.4
28	E.	N.	19	....	24 11.0	24 27.7	24 45.6	25 2.3	25 20.3	25 37.1	25 55.9	26 5.2	26 12.6	....	....
		S.	19	....	30 1.5	29 43.5	29 23.0	29 6.0	28 46.7	28 28.0	28 8.7	28 0.4	27 50.6	....	....
	W.	S.	21	....	15 13.0	15 31.7	15 50.4	16 9.8	16 28.3	16 47.6	17 6.5	17 16.0	17 23.9	....	....
		N.	21	....	21 3.0	20 46.2	20 29.0	20 10.9	19 54.3	19 36.5	19 18.0	19 9.0	19 0.0	....	....
28	E.	N.	20 48 4.0	48 17.3	48 28.7	48 41.0	48 53.7	49 6.4	49 18.4	49 31.3	49 43.7	....	....	....	....
		S.	20 52 59.8	52 46.4	52 33.7	52 21.1	52 8.3	51 55.4	51 43.0	51 30.0	51 17.0	....	....	....	....
	W.	S.	23 27 32.2	27 45.6	27 59.2	28 11.6	28 24.6	28 37.4	28 50.5	29 3.2	29 15.6	....	....	....	....
		N.	23 32 28.6	32 15.4	32 3.5	31 51.4	31 38.6	31 26.4	31 13.8	31 1.3	30 48.5	....	....	....	....
28	E.	N.	21	....	48 50.0	49 13.0	49 35.5	49 59.0	50 21.6	50 46.4	51 9.5	....	51 32.6	51 45.0	....
		S.	21	....	56 52.2	56 24.0	55 56.8	55 31.8	55 4.4	54 38.4	54 12.6	....	53 47.3	53 33.5	....
	W.	S.	23	....	9 55.8	10 22.7	10 50.7	11 18.6	11 42.8	12 8.6	12 34.0	....	13 0.7	13 15.2	....
		N.	23	....	17 58.0	17 36.4	17 13.6	16 48.5	16 26.6	16 3.8	15 39.6	....	15 15.4	15 3.0	....
28	E.	N.	2	....	52 5.3	52 19.9	52 34.7	52 49.3	53 4.5	53 19.2	53 35.1	53 43.0	53 50.0	53 58.3	....
		S.	2	....	57 0.4	56 45.4	56 29.6	56 13.5	55 58.6	55 42.2	55 26.2	55 18.4	55 11.7	55 3.9	....
	W.	S.	5	....	3 26.6	3 41.4	3 58.5	4 14.2	4 29.6	4 45.9	4 59.9	5 8.7	5 15.5	5 23.9	....
		N.	5	....	8 22.3	8 9.0	7 53.4	7 38.2	7 22.5	7 8.5	6 53.8	6 46.1	6 38.3	6 30.5	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
50 Persei	230.4	244.0	+1.750	+1.629	+37 43 55.74	+ 0.18	+37 43 55.92	B.	Fair seeing.
	232.0	246.4							
	245.6	254.9	+1.663						Good seeing.
	242.2	259.5							
μ Aurigæ	242.4	251.7	+1.500	+1.551	38 20 31.87	+ 7.36	38 20 39.23	B.	Good seeing.
	240.5	255.2							
	244.0	260.4	+1.744						Unsteady; light clouds.
	247.6	259.1							
α Lyræ	209.5	236.2	+2.481	+2.328	38 40 59.19	−27.81	38 40 31.38	B.	Tolerable image; thin clouds.
	217.3	230.3							
	221.8	233.4	+2.306						Poor image; much diffuse.
	216.6	241.9							
τ Cygni	226.8	241.0	+2.313	+2.180	37 33 20.49	−33.67	37 32 46.82	B.	Tolerable seeing; image not very good.
	224.0	246.8							
	236.0	254.0	+2.250						Fair seeing; image little diffuse.
	236.2	254.2							
72 Cygni	227.6	247.7	+2.206	+2.125	38 1 8.33	−33.22	38 0 35.11	B.	Fair seeing.
	231.4	246.6							
	236.8	254.6	+2.228						Fair seeing.
	236.9	254.9							
1 Lacertæ	231.4	247.3	+2.156	+2.019	37 10 31.63	−32.23	37 9 59.40	B.	Fair seeing.
	230.5	249.1							
	239.4	255.9	+2.094						Light clouds.
	239.5	256.5							
50 Persei	245.0	256.0	+1.888	+1.813	37 43 55.49	+ 0.03	37 43 55.52	T.	Fair seeing; good steady image.
	241.2	260.4							
	242.8	258.4	+1.925						Very faint; clouds.
	242.8	258.0							
α Lyræ	197.6	217.6	+1.994	+1.936	38 40 59.66	−27.79	38 40 31.87	T.	Steady; faint at times; light clouds.
	205.9	217.8							
	208.4	221.4	+1.963						Steady; faint and diffuse at times; clouds.
	206.4	224.8							
40 Cygni	206.8	225.2	+2.019	+1.834	38 3 56.46	−33.06	38 3 23.40	T.	Exceedingly faint; light clouds.
	209.8	223.7							
	213.6	227.2	+1.756						Tolerable seeing; steady; quite faint.
	213.8	228.3							
1 Lacertæ	212.1	226.1	+1.725	+1.808	37 10 31.41	−32.45	37 9 58.96	T.	Good seeing; well defined; steady.
	210.8	224.4							
	213.6	230.0	+2.031						Good seeing; steady.
	213.9	230.0							
10 Lacertæ	213.6	229.8	+1.975	+1.940	38 27 1.18	−31.58	38 26 29.60	T.	Exceedingly faint at times; light clouds.
	214.3	229.7							
	213.6	229.6	+2.013						Good seeing; good image; steady.
	213.6	229.8							
α Lyræ	185.8	195.6	+1.875	+1.962	38 40 59.10	−27.76	38 40 31.34	B.	Very good seeing.
	180.5	200.7							
	189.6	211.6	+2.094						Image diffuse.
	196.0	207.5							
40 Cygni	197.6	208.3	+1.825	+1.888	38 3 55.12	−33.13	38 3 21.99	B.	Very good seeing; steady.
	194.9	213.4							
	201.5	219.6	+2.038						Good seeing.
	204.0	218.5							
1 Lacertæ	202.8	215.6	+1.963	+1.830	37 10 31.00	−32.58	37 9 58.42	B.	Good seeing.
	200.6	219.2							
	210.1	225.5	+1.825						Good seeing.
	211.6	225.4							
10 Lacertæ	205.5	218.9	+1.794	+1.774	38 27 1.08	−31.76	38 26 29.32	B.	Good seeing.
	205.0	220.3							
	207.9	224.1	+1.838						Good seeing.
	210.8	224.0							
50 Persei	222.3	233.0	+1.819	+1.642	+37 43 56.50	− 0.26	+37 43 56.24	T.	Tolerable seeing; little diffuse.
	219.0	237.4							
	226.0	241.0	+1.594						Tolerable seeing; fair image; not quite steady.
	228.6	239.1							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Sept. 28	E.	S.	4	....	16 2.2	16 22.9	16 44.7	17 4.9	17 26.8	17 48.4	18 10.6	18 20.6	18 31.4	18 43.8	....
		N.	4	....	23 3.6	22 38.7	22 13.9	21 51.2	21 28.4	21 4.2	20 40.9	20 29.2	20 19.5	20 6.9	....
	W.	N.	5	....	46 37.0	46 59.4	47 25.4	47 46.9	48 10.4	48 35.3	48 58.4	49 8.3	49 19.5	49 30.5	....
		S.	5	....	53 37.2	53 15.6	52 53.8	52 33.1	52 11.7	51 50.5	51 29.2	51 16.1	51 6.6	50 57.4	....
Oct. 2	E.	S.	18	8 56.9	9 14.0	9 31.6	9 48.0	10 3.5	10 20.2	10 37.2	10 53.3	11 1.4	11 10.4	....	....
		N.	18	14 52.4	14 33.8	14 14.8	13 56.8	13 40.3	13 22.9	13 5.0	12 48.0	12 39.2	12 31.4	....	....
	W.	N.	20	8 22.5	8 40.9	9 0.7	9 17.9	9 35.1	9 52.0	10 10.0	10 27.3	10 35.4	10 44.1	....	....
		S.	20	14 17.7	14 1.1	13 43.7	13 26.9	13 11.2	12 54.1	12 37.0	12 21.2	12 12.9	12 4.6	....	....
2	E.	N.	19	....	24 7.9	24 25.0	24 43.4	25 0.3	25 17.8	25 34.8	25 53.9	26 2.5	26 10.7	....	....
		S.	19	....	29 59.8	29 40.7	29 21.8	29 3.0	28 44.5	28 26.2	28 7.1	27 57.9	27 49.5	....	....
	W.	S.	21	....	15 8.0	15 24.5	15 46.2	16 5.0	16 22.9	16 42.7	17 1.0	17 9.7	17 18.8	....	....
		N.	21	....	21 0.6	20 42.8	20 24.8	20 8.1	19 50.2	19 33.9	19 14.4	19 6.3	18 57.4	....	....
2	E.	S.	19	....	....	56 59.8	57 13.4	57 26.3	57 41.8	57 55.7	58 9.8	58 16.3	58 23.2	58 30.4	....
		N.	20	....	....	0 59.6	0 44.6	0 31.9	0 16.1	0 0.9	59 46.0	59 39.5	59 32.8	59 25.0	....
	W.	N.	22	....	....	17 55.3	18 9.6	18 23.4	18 39.2	18 53.4	19 8.5	19 15.8	19 22.1	19 29.7	....
		S.	22	....	....	21 55.4	21 40.3	21 28.2	21 13.4	20 58.9	20 44.0	20 38.4	20 31.2	20 23.8	....
2	E.	N.	20	....	....	....	....	....	....	30 52.3	31 10.5	31 19.6	31 27.2	31 36.3	31 45.7
		S.	20	....	....	....	....	....	....	33 37.1	33 19.2	33 10.8	33 2.8	32 52.9	32 43.6
	W.	S.	22	....	....	....	....	....	....	25 2.3	25 20.6	25 29.1	25 38.3	25 47.8	25 57.1
		N.	22	....	....	....	....	....	....	27 47.6	27 31.4	27 21.6	27 14.6	27 4.3	26 55.3
2	E.	N.	20	48 15.0	48 27.4	48 39.3	48 51.4	49 4.5	49 16.4	....	....	....	....	....	....
		S.	20	52 43.6	52 30.4	52 18.2	52 4.6	51 51.9	51 39.3	....	....	....	....	....	....
	W.	S.	23	27 42.0	27 55.6	28 7.9	28 21.0	28 33.2	28 46.6	....	....	....	....	....	....
		N.	23	32 11.7	32 0.0	31 47.0	31 34.9	31 23.1	31 11.1	....	....	....	... ...	....	....
2	E.	S.	21	....	48 52.2	49 17.0	49 40.4	50 1.3	50 27.2	50 50.2	51 14.3	51 26.0	51 38.1	51 50.2	52 2.1
		N.	21	....	56 43.6	56 14.2	55 46.8	55 22.0	54 54.2	54 28.0	54 2.9	53 51.2	53 38.2	53 25.4	53 10.3
	W.	N.	23	....	9 56.6	10 28.4	10 54.9	11 20.5	11 49.3	12 14.8	12 40.1	12 52.6	13 4.6	13 18.8	13 28.4
		S.	23	....	17 50.7	17 26.4	17 2.0	16 40.2	16 17.5	15 52.0	15 27.2	15 18.6	15 5.3	14 52.8	14 39.6
3	E.	S.	17	....	58 57.9	59 31.3	0 1.3	0 32.5	1 6.0	1 38.5	2 12.6	2 29.7	2 44.0	....	....
		N.	18	....	10 26.8	9 39.4	8 53.7	8 13.6	7 29.8	6 48.4	6 8.2	5 49.8	5 31.0	....	....
	W.	N.	18	....	54 2.0	54 50.2	55 34.0	56 15.4	57 0.7	57 40.8	58 20.4	58 39.4	58 58.0	....	....
		S.	19	....	5 32.7	5 1.4	4 29.4	3 58.9	3 26.0	2 53.1	2 20.0	2 3.3	1 46.1	....	....
3	E.	S.	4	....	....	16 18.6	....	....	....	17 44.9	18 5.3	18 15.8	18 26.4	....	....
		N.	4	....	....	22 34.7	....	....	....	21 0.9	20 38.0	20 27.7	20 15.2	....	....
	W.	N.	5	....	....	46 56.2	....	....	....	48 31.3	48 53.7	49 3.5	49 15.0	....	....
		S.	5	....	....	53 14.2	....	....	....	51 48.0	51 26.8	51 15.5	51 4.0	....	....
3	E.	N.	4 29 25.8	29 38.4	29 51.7	30 2.9	30 15.7	30 28.6	30 41.3	30 53.5	31 6.8	....	....	....	....
		S.	4 34 22.2	34 9.1	33 56.0	33 43.2	33 29.7	33 16.9	33 5.0	32 51.5	32 38.5	....	....	....	....
	W.	S.	7 7 45.9	7 59.6	8 13.4	8 26.0	8 39.0	8 52.7	9 5.5	9 17.6	9 30.9	....	....	....	....
		N.	7 12 44.5	12 31.0	12 18.0	12 6.4	11 53.8	11 39.8	11 28.8	11 16.0	11 3.0	....	....	....	....
4	E.	N.	17	....	....	59 18.0	59 50.3	0 21.0	0 52.8	1 24.9	1 59.3	2 14.9	2 32.1	....	3 8.3
		S.	18	....	....	9 52.4	9 6.8	8 26.0	7 44.0	7 3.8	6 23.2	6 3.4	5 45.6	....	5 7.1
	W.	S.	18	....	.. ....	54 32.9	55 17.3	56 1.4	56 43.2	57 25.6	58 4.8	58 23.7	58 42.7	....	59 22.7
		N.	19	....	....	5 14.0	4 43.0	4 10.3	3 38.0	3 6.6	2 30.6	2 16.8	1 59.4	....	1 21.6
8	E.	S.	19	....	24 8.4	24 27.8	24 45.1	25 1.2	25 19.7	25 37.5	25 54.9	26 3.8	....	....	....
		N.	19	....	29 50.8	29 30.0	29 11.2	28 52.6	28 33.6	28 15.5	27 56.5	27 47.8	....	....	....
	W.	N.	21	....	15 3.8	15 24.5	15 43.8	16 1.5	16 21.9	16 40.1	16 59.3	17 6.7	....	....	....
		S.	21	....	20 48.9	20 30.1	20 11.8	19 55.9	19 37.0	19 19.7	19 0.5	18 52.8	....	....	....
8	E.	N.	19	....	56 36.8	56 50.0	57 4.6	57 18.2	57 30.9	57 46.4	58 0.9	58 8.6	58 15.7	....	....
		S.	20	....	1 14.4	0 59.9	0 45.9	0 30.3	0 16.8	0 1.3	59 47.1	59 39.6	59 32.5	....	....
	W.	S.	22	....	17 28.6	17 43.0	17 58.1	18 13.1	18 27.4	18 41.6	18 56.2	19 4.3	19 11.0	....	....
		N.	22	....	22 6.1	21 53.0	21 37.7	21 24.0	21 11.0	20 56.4	20 41.9	20 35.4	20 28.7	....	....
8	E.	S.	20	....	....	....	30 2.7	30 19.3	30 37.0	30 54.3	31 11.2	31 19.9	31 28.9	....	....
		N.	20	....	....	....	34 23.3	34 6.3	33 47.0	33 28.1	33 9.5	33 1.9	32 52.4	....	....
	W.	N.	22	....	....	....	24 7.7	24 23.9	24 42.5	24 59.9	25 19.0	25 27.6	25 36.5	....	....
		S.	22	....	....	....	28 26.0	28 11.1	27 52.6	27 34.6	27 17.3	27 8.6	26 59.5	....	....
8	E.	N.	20 47 56.1	....	48 21.8	48 34.3	48 46.8	48 59.2	49 10.9	49 23.9	49 36.2	....	....	....	....
		S.	20 52 53.4	....	52 28.0	52 14.4	52 1.8	51 49.0	51 35.5	51 23.2	51 10.4	....	....	....	....
	W.	S.	23 27 21.5	....	27 48.3	28 0.1	28 13.5	28 26.7	28 40.0	28 52.5	29 4.9	....	....	....	....
		N.	23 32 17.8	....	31 53.5	31 41.6	31 28.0	31 15.3	31 3.3	30 51.7	30 38.0	....	....	....	....
8	E.	S.	21	....	48 50.1	49 14.1	49 38.1	....	50 26.3	50 49.7	51 11.9	51 24.4	51 35.3	....	....
		N.	21	....	56 40.0	56 9.4	55 43.2	....	54 51.8	54 24.7	53 58.9	53 45.4	53 33.4	....	....
	W.	N.	23	....	9 51.0	10 20.1	10 47.7	....	11 40.6	12 5.6	12 32.0	12 43.8	12 57.6	....	....
		S.	23	....	17 40.4	17 16.6	16 52.3	....	16 7.2	15 41.6	15 20.0	15 8.3	14 55.0	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ' "	"	° ' "		
μ Aurigæ	226.7	238.3	+1.088	+1.382	+38 20 32.03	+ 7.08	+38 20 39.11	T.	Tolerable seeing; diffuse; not quite steady.
	231.6	237.4							
	230.3	240.9	+1.775						Good seeing; good image.
	227.3	245.1							
θ Lyræ	202.2	223.1	+2.106	+2.040	37 56 4.44	−30.38	37 55 34.06	T.	Good seeing; faint; tolerably steady.
	206.4	219.2							
	214.6	226.8	+2.094						Good seeing; good image.
	210.6	231.9							
40 Cygni	211.1	222.5	+2.038	+1.885	38 3 56.93	−33.52	38 3 23.41	T.	Good seeing; good image.
	207.2	228.4							
	219.6	236.8	+1.850						Good seeing; good image; unsteady.
	221.1	233.5							
τ Cygni	209.6	230.0	+1.988	+1.820	37 33 21.33	−34.11	37 32 47.22	T.	Good seeing; slightly diffuse.
	214.6	226.0							
	223.6	237.0	+1.788						Good seeing; somewhat diffuse.
	221.6	236.8							
72 Cygni	217.2	226.7	+1.844	+1.753	38 1 9.68	−34.09	38 0 35.59	T.	Good seeing.
	213.2	233.2							
	221.6	236.8	+1.781						Good seeing; slightly diffuse.
	225.0	238.3							
1 Lacertæ	218.2	230.0	+2.063	+1.785	37 10 32.23	−33.23	37 9 59.00	T.	Good seeing.
	214.3	235.5							
	226.3	239.1	+1.663						Good seeing; diffuse.
	229.0	242.8							
10 Lacertæ	218.8	237.6	+2.013	+1.884	38 27 1.87	−32.47	38 26 29.40	T.	Good seeing; diffuse.
	222.4	235.8							
	227.4	239.8	+1.881						Good seeing; diffuse.
	225.5	243.2							
α Lyræ	205.2	236.0	+2.700	+2.571	38 40 59.66	−27.80	38 40 31.86	B.	Very faint; steady; clouds.
	215.6	228.0							
	223.8	237.4	+2.588						Poor image; cloudy.
	218.3	246.1							
μ Aurigæ	248.8	267.2	+1.944	+1.892	38 20 31.98	+ 6.89	38 20 38.87	T.	Faint; diffuse; unsteady; clouds.
	253.0	265.7							
	257.2	269.6	+2.038						Exceedingly faint; clouds.
	253.9	274.1							
θ Aurigæ	253.2	265.6	+1.988	+1.821	37 11 58.82	+11.24	37 12 10.06	T.	Diffuse; unsteady; light clouds.
	250.2	269.6							
	258.0	275.8	+1.888						Faint; diffuse; light clouds.
	261.8	274.2							
α Lyræ	234.8	252.8	+3.081	+2.725	38 40 59.43	−27.83	38 40 31.60	T.	Poor seeing; diffuse; somewhat unsteady; clouds.
	230.0	261.3							
	238.6	262.6	+2.588						1¼-inch aperture; poor seeing; very unsteady.
	242.7	260.1							
40 Cygni	247.2	235.8	−0.563	−0.487	38 3 57.82	−34.24	38 3 23.58	B.	Fair seeing; thin clouds.
	241.1	243.5							
	252.7	254.0	−0.456						Good seeing.
	258.6	250.0							
τ Cygni	244.0	246.0	−0.563	−0.578	37 33 22.07	−35.06	37 32 47.01	B.	Very fair seeing.
	251.5	240.5							
	261.7	253.6	−0.656						Good seeing.
	259.2	256.8							
72 Cygni	255.1	242.8	−0.819	0.631	38 1 10.70	−35.15	38 0 35.55	B.	Good seeing.
	250.8	250.0							
	259.2	257.2	−0.506						Good seeing.
	261.3	255.2							
1 Lacertæ	251.6	250.5	−0.656	−0.604	37 10 33.32	−34.42	37 9 58.90	B.	Good seeing.
	256.5	247.1							
	264.6	258.6	−0.625						Fair seeing.
	264.0	260.0							
10 Lacertæ	261.0	250.0	−0.875	−0.667	+38 27 3.21	−33.77	+38 26 29.44	B.	Good seeing.
	258.1	255.1							
	262.1	258.8	−0.525						Fair seeing.
	264.0	258.9							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Sept. 28	E.	S.	4	....	16 2.2	16 22.9	16 44.7	17 4.9	17 26.8	17 48.4	18 10.6	18 20.6	18 31.4	18 43.8	....
		N.	4	....	23 3.6	22 38.7	22 13.9	21 51.2	21 28.4	21 4.2	20 40.9	20 29.2	20 19.5	20 6.9	....
	W.	N.	5	....	46 37.0	46 59.4	47 25.4	47 46.9	48 10.4	48 35.3	48 58.4	49 8.3	49 19.5	49 30.5	....
		S.	5	....	53 37.2	53 15.6	52 53.8	52 33.1	52 11.7	51 50.5	51 29.2	51 16.1	51 6.6	50 57.4	....
Oct. 2	E.	S.	18	8 56.9	9 14.0	9 31.6	9 48.0	10 3.5	10 20.2	10 37.2	10 53.3	11 1.4	11 10.4	....	....
		N.	18	14 52.4	14 33.8	14 14.8	13 56.8	13 40.3	13 22.9	13 5.0	12 48.0	12 39.2	12 31.4	....	....
	W.	N.	20	8 22.5	8 40.9	9 0.7	9 17.9	9 35.1	9 52.0	10 10.0	10 27.3	10 35.4	10 44.1	....	....
		S.	20	14 17.7	14 1.1	13 43.7	13 26.9	13 11.2	12 54.1	12 37.0	12 21.2	12 12.9	12 4.6	....	....
2	E.	N.	19	....	24 7.9	24 25.0	24 43.4	25 0.3	25 17.8	25 34.8	25 53.9	26 2.5	26 10.7	....	....
		S.	19	....	29 59.8	29 40.7	29 21.8	29 3.0	28 44.5	28 26.2	28 7.1	27 57.9	27 49.5	....	....
	W.	S.	21	....	15 8.0	15 24.5	15 46.2	16 5.0	16 22.9	16 42.7	17 1.0	17 9.7	17 18.8	....	....
		N.	21	....	21 0.6	20 42.8	20 24.8	20 8.1	19 50.2	19 33.9	19 14.4	19 6.3	18 57.4	....	....
2	E.	S.	19	....	....	56 59.8	57 13.4	57 26.3	57 41.8	57 55.7	58 9.8	58 16.3	58 23.2	58 30.4	....
		N.	20	....	....	0 59.6	0 44.6	0 31.9	0 16.1	0 0.9	59 46.0	59 39.5	59 32.8	59 25.0	....
	W.	N.	22	....	....	17 55.3	18 9.6	18 23.4	18 39.2	18 53.4	19 8.5	19 15.8	19 22.1	19 29.7	....
		S.	22	....	....	21 55.4	21 40.3	21 28.2	21 13.4	20 58.9	20 44.0	20 38.4	20 31.2	20 23.8	....
2	E.	N.	20	....	....	....	....	....	....	30 52.3	31 10.5	31 19.6	31 27.2	31 36.3	31 45.7
		S.	20	....	....	....	....	....	....	33 37.1	33 19.2	33 10.8	33 2.8	32 52.9	32 43.6
	W.	S.	22	....	....	....	....	....	....	25 2.3	25 20.6	25 29.1	25 38.3	25 47.8	25 57.1
		N.	22	....	....	....	....	....	....	27 47.6	27 31.4	27 21.6	27 14.6	27 4.3	26 55.3
2	E.	N.	20	48 15.0	48 27.4	48 39.3	48 51.4	49 4.5	49 16.4	....	....	....	....	....	....
		S.	20	52 43.6	52 30.4	52 18.2	52 4.6	51 51.9	51 39.3	....	....	....	....	....	....
	W.	S.	23	27 42.0	27 55.6	28 7.9	28 21.0	28 33.2	28 46.6	....	....	....	....	....	....
		N.	23	32 11.7	32 0.0	31 47.0	31 34.9	31 23.1	31 11.1	....	....	....	....	....	....
2	E.	S.	21	....	48 52.2	49 17.0	49 40.4	50 1.3	50 27.2	50 50.2	51 14.3	51 26.0	51 38.1	51 50.2	52 2.1
		N.	21	....	56 43.6	56 14.2	55 46.8	55 22.0	54 54.2	54 28.0	54 2.9	53 51.2	53 38.2	53 25.4	53 10.3
	W.	N.	23	....	9 56.6	10 28.4	10 54.9	11 20.5	11 49.3	12 14.8	12 40.1	12 52.6	13 4.6	13 18.8	13 28.4
		S.	23	....	17 50.7	17 26.4	17 2.0	16 40.2	16 17.5	15 52.0	15 27.2	15 18.6	15 5.3	14 52.8	14 39.6
3	E.	S.	17	....	58 57.9	59 31.3	0 1.3	0 32.5	1 6.0	1 38.5	2 12.6	2 29.7	2 44.0	....	....
		N.	18	....	10 26.8	9 39.4	8 53.7	8 13.6	7 29.8	6 48.4	6 8.2	5 49.8	5 31.0	....	....
	W.	N.	18	....	54 2.0	54 50.2	55 34.0	56 15.4	57 0.7	57 40.8	58 20.4	58 39.4	58 58.0	....	....
		S.	19	....	5 32.7	5 1.4	4 29.4	3 58.9	3 26.0	2 53.1	2 20.0	2 3.3	1 46.1	....	....
3	E.	S.	4	....	....	16 18.6	....	....	....	17 44.9	18 5.3	18 15.8	18 26.4	....	....
		N.	4	....	....	22 34.7	....	....	....	21 0.9	20 38.0	20 27.7	20 15.2	....	....
	W.	N.	5	....	....	46 56.2	....	....	....	48 31.3	48 53.7	49 3.5	49 15.0	....	....
		S.	5	....	....	53 14.2	....	....	....	51 48.0	51 26.8	51 15.5	51 4.0	....	....
3	E.	N.	4 29 25.8	29 38.4	29 51.7	30 2.9	30 15.7	30 28.6	30 41.3	30 53.5	31 6.8	....	....	....	....
		S.	4 34 22.2	34 9.1	33 56.0	33 43.2	33 29.7	33 16.9	33 5.0	32 51.5	32 38.5	....	....	....	....
	W.	S.	7 7 45.9	7 59.6	8 13.4	8 26.0	8 39.0	8 52.7	9 5.5	9 17.6	9 30.9	....	....	....	....
		N.	7 12 44.5	12 31.0	12 18.0	12 6.4	11 53.8	11 39.8	11 28.8	11 16.0	11 3.0	....	....	....	....
4	E.	N.	17	....	....	59 18.0	59 50.3	0 21.0	0 52.8	1 24.9	1 59.3	2 14.9	2 32.1	....	3 8.3
		S.	18	....	....	9 52.4	9 6.8	8 26.0	7 44.0	7 3.8	6 23.2	6 3.4	5 45.6	....	5 7.1
	W.	S.	18	....	....	54 32.9	55 17.3	56 1.4	56 43.2	57 25.6	58 4.8	58 23.7	58 42.7	....	59 22.7
		N.	19	....	....	5 14.0	4 43.0	4 10.3	3 38.0	3 6.6	2 30.6	2 16.8	1 59.4	....	1 21.6
8	E.	S.	19	....	24 8.4	24 27.8	24 45.1	25 1.2	25 19.7	25 37.5	25 54.9	26 3.8	....	....	....
		N.	19	....	29 50.8	29 30.0	29 11.2	28 52.6	28 33.6	28 15.5	27 56.5	27 47.8	....	....	....
	W.	N.	21	....	15 3.8	15 24.5	15 43.8	16 1.5	16 21.9	16 40.1	16 59.3	17 6.7	....	....	....
		S.	21	....	20 48.9	20 30.1	20 11.8	19 55.9	19 37.0	19 19.7	19 0.5	18 52.8	....	....	....
8	E.	N.	19	....	56 36.8	56 50.0	57 4.6	57 18.2	57 30.9	57 46.4	58 0.9	58 8.6	58 15.7	....	....
		S.	20	....	1 14.4	0 59.9	0 45.9	0 30.3	0 16.8	0 1.3	59 47.1	59 39.6	59 32.5	....	....
	W.	S.	22	....	17 28.6	17 43.0	17 58.1	18 13.1	18 27.4	18 41.6	18 56.2	19 4.3	19 11.0	....	....
		N.	22	....	22 6.1	21 53.0	21 37.7	21 24.0	21 11.0	20 56.4	20 41.9	20 35.4	20 28.7	....	....
8	E.	S.	20	....	....	....	30 2.7	30 19.3	30 37.0	30 54.3	31 11.2	31 19.9	31 28.9	....	....
		N.	20	....	....	....	34 23.3	34 6.3	33 47.0	33 28.1	33 9.5	33 1.9	32 52.4	....	....
	W.	N.	22	....	....	....	24 7.7	24 23.9	24 42.5	24 59.9	25 19.0	25 27.6	25 36.5	....	....
		S.	22	....	....	....	28 26.0	28 11.1	27 52.6	27 34.6	27 17.3	27 8.6	26 59.5	....	....
8	E.	N.	20 47 56.1	....	48 21.8	48 34.3	48 46.8	48 59.2	49 10.9	49 23.9	49 36.2	....	....	....	....
		S.	20 52 53.4	....	52 28.0	52 14.4	52 1.8	51 49.0	51 35.5	51 23.2	51 10.4	....	....	....	....
	W.	S.	23 27 21.5	....	27 48.3	28 0.1	28 13.5	28 26.7	28 40.0	28 52.5	29 4.9	....	....	....	....
		N.	23 32 17.8	....	31 53.5	31 41.6	31 28.0	31 15.3	31 3.3	30 51.7	30 38.0	....	....	....	....
8	E.	S.	21	....	48 50.1	49 14.1	49 38.1	....	50 26.3	50 49.7	51 11.9	51 24.4	51 35.3	....	....
		N.	21	....	56 40.0	56 9.4	55 43.2	....	54 51.8	54 24.7	53 58.9	53 45.4	53 33.4	....	....
	W.	N.	23	....	9 51.0	10 20.1	10 47.7	....	11 40.6	12 5.6	12 32.0	12 43.8	12 57.6	....	....
		S.	23	....	17 40.4	17 16.6	16 52.3	....	16 7.2	15 41.6	15 20.0	15 8.3	14 55.0	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ' "	"	° ' "		
μ Aurigæ......	226.7	238.3	+1.088	+1.382	+38 20 32.03	+ 7.08	+38 20 39.11	T.	Tolerable seeing; diffuse; not quite steady.
	231.6	237.4							
	230.3	240.9	+1.775						Good seeing; good image.
	227.3	245.1							
θ Lyræ	202.2	223.1	+2.106	+2.040	37 56 4.44	−30.38	37 55 34.06	T.	Good seeing; faint; tolerably steady.
	206.4	219.2							
	214.6	226.8	+2.094						Good seeing; good image.
	210.6	231.9							
40 Cygni	211.1	222.5	+2.038	+1.885	38 3 56.93	−33.52	38 3 23.41	T.	Good seeing; good image.
	207.2	228.4							
	219.6	236.8	+1.850						Good seeing; good image; unsteady.
	221.1	233.5							
τ Cygni	209.6	230.0	+1.988	+1.820	37 33 21.33	−34.11	37 32 47.22	T.	Good seeing; slightly diffuse.
	214.6	226.0							
	223.6	237.0	+1.788						Good seeing; somewhat diffuse.
	221.6	236.8							
72 Cygni	217.2	226.7	+1.844	+1.753	38 1 9.68	−34.09	38 0 35.59	T.	Good seeing.
	213.2	233.2							
	221.6	236.8	+1.781						Good seeing; slightly diffuse.
	225.0	238.3							
1 Lacertæ	218.2	230.0	+2.063	+1.785	37 10 32.23	−33.23	37 9 59.00	T.	Good seeing.
	214.3	235.5							
	226.3	239.1	+1.663						Good seeing; diffuse.
	229.0	242.8							
10 Lacertæ	218.8	237.6	+2.013	+1.884	38 27 1.87	−32.47	38 26 29.40	T.	Good seeing; diffuse.
	222.4	235.8							
	227.4	239.8	+1.881						Good seeing; diffuse.
	225.5	243.2							
α Lyræ	205.2	236.0	+2.700	+2.571	38 40 59.66	−27.80	38 40 31.86	B.	Very faint; steady; clouds.
	215.6	228.0							
	223.8	237.4	+2.588						Poor image; cloudy.
	218.3	246.1							
μ Aurigæ......	248.8	267.2	+1.944	+1.892	38 20 31.98	+ 6.89	38 20 38.87	T.	Faint; diffuse; unsteady; clouds.
	253.0	265.7							
	257.2	269.6	+2.038						Exceedingly faint; clouds.
	253.9	274.1							
θ Aurigæ......	253.2	265.6	+1.988	+1.821	37 11 58.82	+11.24	37 12 10.06	T.	Diffuse; unsteady; light clouds.
	250.2	269.6							
	258.0	275.8	+1.888						Faint; diffuse; light clouds.
	261.8	274.2							
α Lyræ	234.8	252.8	+3.081	+2.725	38 40 59.43	−27.83	38 40 31.60	T.	Poor seeing; diffuse; somewhat unsteady; clouds.
	230.0	261.3							
	238.6	262.6	+2.588						1¼-inch aperture; poor seeing; very unsteady.
	242.7	260.1							
40 Cygni	247.2	235.8	−0.563	−0.487	38 3 57.82	−34.24	38 3 23.58	B.	Fair seeing; thin clouds.
	241.1	243.5							
	252.7	254.0	−0.456						Good seeing.
	258.6	250.0							
τ Cygni	244.0	246.0	−0.563	−0.578	37 33 22.07	−35.06	37 32 47.01	B.	Very fair seeing.
	251.5	240.5							
	261.7	253.6	−0.656						Good seeing.
	259.2	256.8							
72 Cygni	255.1	242.8	−0.819	−0.631	38 1 10.70	−35.15	38 0 35.55	B.	Good seeing.
	250.8	250.0							
	259.2	257.2	−0.506						Good seeing.
	261.3	255.2							
1 Lacertæ	251.6	250.5	−0.656	−0.604	37 10 33.32	−34.42	37 9 58.90	B.	Good seeing.
	256.5	247.1							
	264.6	258.6	−0.625						Fair seeing.
	264.0	260.0							
10 Lacertæ	261.0	250.0	−0.875	−0.667	+38 27 3.21	−33.77	+38 26 29.44	B.	Good seeing.
	258.1	255.1							
	262.1	258.8	−0.525						Fair seeing.
	264.0	258.9							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Oct. 8	E.	S.	22	....	....	47 44.3	48 12.7	48 39.9	49 6.8	49 34.2	50 5.2	50 19.4	50 34.5	50 48.0	....
		N.	22	....	....	56 21.3	55 46.4	55 12.2	54 38.0	54 1.6	53 31.6	53 16.0	52 58.5	52 42.2	....
	W.	N.	23	....	....	53 15.0	53 50.5	54 22.9	54 57.3	55 28.9	56 3.0	56 19.5	56 35.8	56 51.6	....
		S.	0	....	....	1 50.8	1 21.9	0 57.0	0 26.6	59 57.7	59 28.3	59 13.7	59 0.2	58 44.5	....
8	E.	N.	5	....	14 53.7	15 16.2	15 39.7	16 4.3	16 26.7	16 52.6	17 20.0	17 30.2	17 42.0	17 55.9	18 9.5
		S.	5	....	23 14.2	22 45.6	22 15.0	21 48.1	21 22.3	20 54.3	20 26.7	20 12.9	19 59.6	19 45.9	19 28.5
	W.	S.	6	....	32 17.0	32 45.3	33 15.0	33 42.2	34 11.7	34 36.4	35 9.6	35 21.0	35 33.8	35 46.4	36 1.9
		N.	6	....	40 42.2	40 19.8	39 56.3	39 29.9	39 7.5	38 41.5	38 17.3	38 4.7	37 52.4	37 38.1	37 25.2
9	E.	S.	18	....	....	....	9 44.2	9 59.7	10 16.0	10 33.1	10 50.0	10 58.0	....	....	....
		N.	18	....	....	....	13 51.9	13 35.5	13 17.0	12 59.3	12 42.1	12 34.0	....	....	....
	W.	N.	20	....	....	....	9 11.0	9 27.0	9 45.5	10 3.3	10 19.9	10 28.9	....	....	....
		S.	20	....	....	....	13 18.2	13 3.5	12 45.8	12 29.1	12 12.8	12 4.9	....	....	....
9	E.	S.	18	....	56 29.8	56 49.9	57 9.0	57 27.3	57 46.1	58 6.2	58 25.0	....	....	....	....
		N.	19	....	2 40.9	2 19.0	1 57.0	1 37.9	1 16.6	0 55.5	0 36.0	....	....	....	....
	W.	N.	20	....	39 6.9	39 28.9	39 50.5	40 9.4	40 31.0	40 52.0	41 12.1	....	....	....	....
		S.	20	....	45 18.2	44 57.9	44 39.2	44 22.3	44 1.3	43 42.7	43 23.0	....	....	....	....
9	E.	N.	19	....	24 2.7	24 19.5	24 37.7	24 55.9	25 12.2	25 30.4	25 48.2	25 57.1	26 5.5	....	....
		S.	19	....	29 56.0	29 37.5	29 17.9	28 59.2	28 40.9	28 22.2	28 2.7	27 53.6	27 44.5	....	....
	W.	S.	21	....	14 58.9	15 18.1	15 36.9	15 55.5	16 15.1	16 34.0	16 52.1	17 0.9	17 10.5	....	....
		N.	21	....	20 52.9	20 35.1	20 17.4	19 59.7	19 42.3	19 24.5	19 5.3	18 57.8	18 50.0	....	....
9	E.	S.	19	....	56 40.0	56 55.2	57 8.9	57 22.1	57 36.5	57 51.4	58 4.9	58 11.9	58 18.9	58 26.5	....
		N.	20	....	1 10.6	0 54.4	0 39.1	0 25.5	0 10.1	59 55.7	59 41.5	59 34.2	59 27.7	59 20.2	....
	W.	N.	22	....	17 32.2	17 47.9	18 2.7	18 16.5	18 31.1	18 46.7	19 0.8	19 7.6	19 14.5	19 22.4	....
		S.	22	....	22 1.7	21 46.3	21 32.2	21 19.4	21 4.9	20 50.7	20 36.4	20 29.9	20 22.0	20 15.2	....
9	E.	S.	20	....	48 23.6	48 37.0	48 50.0	49 1.3	49 14.3	49 26.9	49 39.3	49 45.9	49 52.2	....	....
		N.	20	....	52 23.0	52 9.6	51 56.5	51 44.6	51 30.6	51 17.8	51 4.9	50 58.8	50 52.6	....	....
	W.	N.	23	....	27 49.7	28 4.6	28 17.0	28 29.4	28 42.5	28 55.4	29 8.2	29 14.3	29 21.1	....	....
		S.	23	....	31 49.0	31 35.9	31 23.5	31 11.6	30 58.4	30 46.0	30 32.9	30 26.9	30 21.0	....	....
9	E.	N.	21	....	....	49 5.9	49 28.4	49 51.4	50 14.8	50 39.6	51 3.6	51 15.9	51 27.3	51 39.5	51 52.5
		S.	21	....	....	56 20.5	55 52.3	55 25.5	54 58.8	54 32.9	54 6.3	53 54.1	53 41.0	53 27.8	53 14.4
	W.	S.	23	....	....	10 9.0	10 36.6	11 4.1	11 28.0	11 56.0	12 22.3	12 34.9	12 47.4	13 0.7	13 14.1
		N.	23	....	....	17 23.0	17 0.9	16 36.9	16 14.6	15 49.6	15 26.2	15 14.4	15 2.3	14 49.6	14 36.8
9	E.	N.	22	....	47 7.7	47 35.1	48 1.3	48 30.9	48 57.5	49 26.8	49 55.5	50 9.9	50 23.7	50 38.7	50 56.6
		S.	22	....	57 6.7	56 32.7	55 55.9	55 19.9	54 47.6	54 14.9	53 40.6	53 25.4	53 9.7	52 53.3	52 36.1
	W.	S.	23	....	52 23.3	53 1.4	53 37.9	54 11.8	54 45.8	55 20.0	55 52.7	56 7.3	56 22.7	56 40.0	56 55.6
		N.	0	....	2 24.9	2 0.0	1 31.9	1 2.9	0 35.6	0 8.5	59 38.5	59 24.5	59 10.3	58 54.6	58 38.8
9	E.	N.	4 15 7.5	15 29.0	15 50.0	16 9.8	16 30.6	16 51.6	17 14.1	17 35.0	17 56.8	18 6.9	18 17.8	....	....
		S.	4 23 53.8	23 27.9	23 1.9	22 38.0	22 14.3	21 50.5	21 28.3	21 4.8	20 39.9	20 28.6	20 19.0	....	....
	W.	S.	5 45 28.5	45 52.4	46 17.8	46 40.0	47 7.4	47 31.4	47 52.3	48 18.1	48 40.0	48 51.2	49 1.9	....	....
		N.	5 54 10.7	53 51.9	53 30.7	53 10.8	52 49.0	52 27.5	52 6.8	51 46.3	51 23.6	51 12.1	51 1.2	....	....
9	E.	N.	5	....	14 51.5	15 13.0	15 38.3	16 1.6	16 24.7	16 49.5	17 15.5	....	17 40.5	17 54.3	....
		S.	5	....	23 16.5	22 46.9	22 17.6	21 48.8	21 21.6	20 53.6	20 25.0	....	20 0.6	19 45.9	....
	W.	S.	6	....	32 16.0	32 42.8	33 12.3	33 40.5	34 8.9	34 35.8	35 5.5	....	35 31.6	35 45.4	....
		N.	6	....	40 40.7	40 19.0	39 54.6	39 30.3	39 5.7	38 40.4	38 14.9	....	37 50.8	37 37.4	....
10	E.	N.	17	....	....	59 11.0	59 42.3	....	....	1 17.0	1 51.8	2 8.3	2 24.6	2 43.0	3 0.9
		S.	18	....	....	9 57.0	9 11.3	....	....	7 6.8	6 25.8	6 7.9	5 47.6	5 27.4	5 7.2
	W.	S.	18	....	....	54 17.9	55 3.0	....	....	57 9.8	57 50.1	58 10.0	58 29.0	58 48.5	59 8.8
		N.	19	....	....	5 3.9	4 32.7	....	....	2 59.6	2 25.0	2 8.6	1 51.4	1 34.1	1 14.4
10	E.	N.	19	....	....	....	....	24 54.0	25 9.0	25 28.6	25 46.5	25 54.6	26 4.0	26 12.4	....
		S.	19	....	....	....	....	28 58.3	28 40.5	28 21.8	28 2.8	27 53.8	27 45.0	27 34.8	....
	W.	S.	21	....	....	....	....	15 53.7	16 14.2	16 33.9	16 51.5	17 0.0	17 8.5	17 18.4	....
		N.	21	....	....	....	....	19 58.1	19 40.6	19 23.5	19 5.0	18 56.7	18 47.6	18 37.9	....
10	E.	S.	19	....	56 39.6	56 53.9	57 9.2	57 22.1	57 36.5	57 50.7	58 4.8	58 11.4	58 18.2	....	....
		N.	20	....	1 8.0	0 52.3	0 38.2	0 24.1	0 8.8	59 54.9	59 39.6	59 33.4	59 28.3	....	....
	W.	N.	22	....	17 31.9	17 46.0	18 0.9	18 15.6	18 30.4	18 44.7	18 59.4	19 6.5	19 13.7	....	....
		S.	22	....	22 0.0	21 44.7	21 30.4	21 17.1	21 2.7	20 49.0	20 35.9	20 28.9	20 23.1	....	....
10	E.	N.	20	....	....	....	....	30 11.0	30 28.0	30 45.4	31 4.0	31 12.3	31 20.0	31 28.5	....
		S.	20	....	....	....	....	34 9.6	33 51.5	33 33.4	33 15.4	33 7.0	32 58.7	32 48.0	....
	W.	S.	22	....	....	....	....	24 16.5	24 33.6	24 51.0	25 9.2	25 17.8	25 27.2	25 36.6	....
		N.	22	....	....	....	....	28 12.6	27 55.5	27 38.6	27 20.6	27 12.1	27 3.7	26 54.0	....
10	E.	S.	20 47 58.5	48 11.3	48 23.5	48 37.1	48 49.5	49 1.3	49 14.0	49 27.0	49 39.2	....	....	....	....
		N.	20 52 48.0	52 35.0	52 21.3	52 8.0	51 54.3	51 42.4	51 29.7	51 16.3	51 2.7	....	....	....	....
	W.	N.	23 27 22.3	27 34.6	27 48.1	28 2.0	28 15.9	28 28.0	28 41.0	28 54.6	29 6.8	....	....	....	....
		S.	23 32 12.8	32 0.0	31 47.0	31 33.8	31 22.2	31 10.8	30 56.5	30 44.0	30 32.6	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
14 Andromedæ	263.9	254.5	−0.875	−0.735	+38 36 8.36	−31.06	+38 35 37.30	B.	Tolerable seeing; light clouds.
	262.2	257.6							
	265.3	260.0	−0.669						Fair seeing.
	266.2	260.8							
40 Aurigæ	271.1	270.7	−0.700	−0.390	38 29 17.65	+12.31	38 29 29.96	T.	Diffuse.
	277.2	266.4							
	278.0	274.0	−0.125						Diffuse and unsteady.
	274.0	276.0							
θ Lyræ	233.7	223.9	−0.225	−0.283	37 56 4.90	−30.66	37 55 34.24	T.	Good seeing; faint.
	226.2	232.4							
	236.5	241.2	−0.363						Good seeing; steady; well defined.
	244.9	234.4							
22 Cygni	238.4	231.0	−0.213	−0.265	38 11 8.27	−33.03	38 10 35.24	T.	Faint; steady.
	233.1	237.1							
	238.4	242.6	−0.338						Good seeing; good image.
	246.4	236.8							
40 Cygni	234.0	238.0	−0.475	−0.420	38 3 57.95	−34.31	38 3 23.64	T.	Excellent seeing; good image.
	242.4	230.8							
	249.2	238.8	−0.400						Good seeing; good image.
	242.7	246.7							
τ Cygni	243.2	231.2	−0.500	−0.432	37 33 22.57	−35.17	37 32 47.40	T.	Good seeing; good image.
	236.8	240.8							
	247.0	249.8	−0.406						Good seeing; steady; well defined.
	253.7	244.4							
1 Lacertæ	247.0	236.2	−0.444	−0.435	37 10 33.51	−34.59	37 9 58.92	T.	Good seeing; good image; steady.
	241.0	244.7							
	252.7	253.8	−0.475						Good seeing; fair image.
	258.2	249.5							
10 Lacertæ	244.9	247.5	−0.538	−0.485	38 27 3.55	−33.96	38 26 29.59	T.	Good seeing; slightly diffuse; steady.
	253.2	242.0							
	257.0	247.8	−0.475						Good seeing; slightly diffuse; steady.
	252.0	253.6							
14 Andromedæ	250.0	250.4	−0.650	−0.550	38 36 8.59	−31.28	38 35 37.31	T.	Good seeing; well defined.
	257.2	246.4							
	258.8	250.3	−0.500						Tolerable seeing; somewhat diffuse; unsteady.
	255.0	255.5							
μ Aurigæ	272.9	268.3	−0.975	−0.762	38 20 32.94	+ 6.49	38 20 39.43	B.	Tolerable seeing; light fog.
	276.5	265.5							
	276.0	268.9	−0.638						Steady; faint through fog.
	274.0	270.9							
40 Aurigæ	275.2	269.9	−0.981	−0.786	38 29 17.75	+12.26	38 29 30.01	B.	Tolerable seeing; light fog.
	278.1	267.7							
	276.0	267.7	−0.681						Very faint; steady; foggy.
	273.5	270.9							
α Lyræ	209.3	218.8	−0.119	−0.268	38 41 0.04	−27.67	38 40 32.37	B.	Excellent seeing.
	220.9	209.5							
	227.3	216.4	−0.431						Diffuse image; clouds.
	222.0	226.0							
40 Cygni	224.0	226.2	−0.650	−0.546	38 3 57.98	−34.36	38 3 23.62	B.	Good seeing.
	232.3	219.7							
	240.7	231.2	−0.481						Good seeing.
	236.1	237.9							
τ Cygni	234.5	221.3	−0.775	−0.640	37 33 22.91	−35.28	37 32 47.63	B.	Good seeing.
	228.0	228.8							
	244.0	244.0	−0.562						Fair seeing.
	249.0	240.0							
72 Cygni	231.2	231.2	−0.812	−0.609	38 1 11.62	−35.41	38 0 36.21	B.	Good seeing.
	238.8	225.8							
	248.8	240.4	−0.456						Fair seeing.
	244.8	245.7							
1 Lacertæ	239.8	227.0	−0.806	−0.746	+37 10 33.91	−34.74	+37 9 59.17	B.	Good seeing.
	234.3	234.2							
	252.0	248.8	−0.763						Very fair seeing.
	255.8	246.8							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Oct. 10	E.	N.	21	....	48 41.6	49 5.1	49 27.2	49 50.3	50 13.8	50 37.4	51 0.7	51 12.0	51 24.3	....	....
		S.	21	....	56 47.7	56 18.9	55 51.9	55 25.9	54 59.4	54 32.2	54 7.0	53 54.7	53 42.4	....	....
	W.	S.	23	....	9 40.8	10 7.1	10 34.6	11 1.1	11 28.0	11 53.7	12 19.4	12 32.3	12 45.1	....	....
		N.	23	....	17 43.5	17 21.1	16 58.6	16 35.4	16 12.3	15 48.5	15 24.0	15 12.6	15 1.1	....	....
10	E.	N.	22	....	....	....	....	48 29.3	48 55.9	49 22.9	49 53.0	50 7.0	50 20.7	50 35.8	50 52.1
		S.	22	....	....	....	....	55 21.0	54 47.0	54 11.0	53 38.6	53 22.9	53 6.8	52 49.8	52 33.6
	W.	S.	23	....	....	....	....	54 9.4	54 42.1	55 16.4	55 49.8	56 5.2	56 22.2	56 37.0	56 53.5
		N.	0	....	....	....	....	1 0.7	0 33.0	0 5.0	59 35.9	59 21.9	59 8.3	58 52.1	58 37.0
10	E.	N.	4	....	15 49.4	16 8.8	16 30.0	16 52.0	17 12.5	17 33.3	17 56.1	18 8.5	18 18.0	18 28.6	18 40.9
		S.	4	....	23 1.9	22 38.0	22 13.9	21 50.2.	21 25.4	21 1.7	20 37.9	20 28.4	20 17.6	20 5.8	19 51.6
	W.	S.	5	....	46 17.0	46 40.1	47 4.9	47 27.9	47 51.0	48 14.9	48 36.4	48 49.1	48 59.7	49 12.5	49 24.7
		N.	5	....	53 29.9	53 8.3	52 48.5	52 26.7	52 6.2	51 43.7	51 22.7	51 11.0	51 1.0	50 49.4	50 37.3
10	E.	S.	4	....	29 47.4	30 0.5	30 13.3	30 25.3	30 38.3	30 51.2	31 3.9	31 8.9	31 16.9	....	....
		N.	4	....	33 47.6	33 34.5	33 21.2	33 8.7	32 53.9	32 42.5	32 29.0	32 22.9	32 15.9	....	....
	W.	N.	7	....	8 7.4	8 21.3	8 34.9	8 47.1	9 0.2	9 13.8	9 26.6	9 33.0	9 39.0	....	....
		S.	7	....	12 8.7	11 55.4	11 42.7	11 31.0	11 17.2	11 4.1	10 52.7	10 46.0	10 39.8	....	....
10	E.	N.	5	....	14 49.8	15 12.4	15 37.1	16 1.5	16 24.7	16 50.9	17 15.1	17 26.9	17 38.6	17 52.5	18 6.4
		S.	5	....	23 13.4	22 44.7	22 16.2	21 48.2	21 21.2	20 53.3	20 25.0	20 10.7	19 57.7	19 45.9	19 30.0
	W.	S.	6	....	32 14.5	32 43.2	33 12.4	33 41.4	34 9.0	34 35.6	35 4.5	35 18.0	35 30.5	35 43.9	35 59.8
		N.	6	....	40 39.1	40 15.6	39 50.1	39 27.0	39 4.2	38 39.0	38 14.3	38 1.2	37 48.9	37 35.5	37 22.5
11	E.	S.	18	....	....	56 47.3	57 7.0	57 24.9	57 44.2	58 3.2	58 23.0	58 31.1	58 41.9	58 50.8	....
		N.	19	....	....	2 15.7	1 55.0	1 35.2	1 13.7	0 54.0	0 33.8	0 24.1	0 14.1	0 3.6	....
	W.	N.	20	....	....	39 27.3	39 48.5	40 8.4	40 29.8	40 49.8	41 10.2	41 19.5	41 28.9	41 39.2	....
		S.	20	....	....	44 56.2	44 37.2	44 19.2	43 59.3	43 39.9	43 20.3	43 10.8	43 1.2	42 52.0	....
11	E.	S.	19	....	24 5.9	24 24.2	24 41.8	24 58.3	25 17.4	25 35.2	25 52.3	26 1.2	26 10.1	....	....
		N.	19	....	29 48.3	29 28.4	29 9.7	28 51.0	28 31.4	28 13.0	27 54.1	27 45.4	27 35.7	....	....
	W.	N.	21	....	15 2.5	15 21.9	15 41.4	15 58.3	16 19.2	16 38.0	16 56.8	17 6.1	17 15.0	....	....
		S.	21	....	20 45.9	20 27.0	20 9.8	19 52.6	19 34.1	19 15.9	18 58.9	18 49.9	18 40.7	....	....
11	E.	S.	20	....	....	....	30 1.0	30 17.4	30 34.4	30 52.9	31 9.6	31 17.5	31 26.4	31 36.0	....
		N.	20	....	....	....	34 19.6	34 2.5	33 44.5	33 26.1	33 7.4	32 58.9	32 50.0	32 40.8	....
	W.	N.	22	....	....	....	24 1.9	24 20.8	24 39.6	24 58.5	25 16.0	25 24.2	25 33.6	25 41.8	....
		S.	22	....	....	....	28 23.7	28 7.6	27 49.2	27 31.7	27 14.7	27 6.3	26 57.3	26 47.9	....
14	E.	S.	17	58 18.8	58 51.4	59 23.0	59 55.3	0 25.5	0 59.2	1 31.7	2 5.7	2 21.8	2 38.7	2 56.0	3 14.0
		N.	18	11 6.0	10 17.6.	9 27.5	8 42.7	8 2.4	7 20.7	6 38.7	6 0.6	5 42.1	5 22.9	5 3.6	4 45.8
	W.	N.	18	53 0.5	53 50.8	54 38.6	55 23.0	56 4.6	56 46.7	57 27.9	58 8.3	58 26.8	58 45.2	59 3.6	59 22.6
		S.	19	5 50.4	5 18.3	4 45.5	4 13.7	3 45.0	3 12.7	2 37.7	2 3.9	1 48.3	1 30.6	1 13.2	0 57.4
15	E.	S.	19	....	....	24 17.9	24 37.5	....	25 12.2	25 31.3	25 48.2	25 56.8	26 5.7	26 15.1	....
		N.	19	....	....	29 29.1	29 8.3	....	28 29.6	28 10.4	27 52.8	27 44.5	27 34.6	27 25.3	....
	W.	N.	21	....	....	15 15.3	15 37.9	....	16 12.9	16 33.2	16 52.3	17 0.9	17 10.7	17 19.3	....
		S.	21	....	....	20 26.2	20 6.4	....	19 31.9	19 13.9	18 55 5	18 47.7	18 38.7	18 29.9	....
15	E.	S.	20	48 4.8	48 19.1	48 30.9	48 44.8	48 55.8	49 10.6	49 22.6	49 34.9	....	....	....	....
		N.	20	52 32.4	52 18.9	52 7.7	51 52.5	51 40.9	51 26.2	51 13.4	50 59.8	....	....	....	....
	W.	N.	23	27 29.6	27 44.0	27 56.3	28 10.3	28 22.5	28 36.5	28 48.9	29 2.0	....	....	....	....
		S.	23	31 57.1	31 43.8	31 32.0	31 18.9	31 6.9	30 53.3	30 40.9	30 28.0	....	....	....	....
15	E.	N.	21	....	48 41.8	49 3.9	49 28.5	49 50.4	50 11.1	50 36.9	51 0.0	51 13.4	51 24.4	....	....
		S.	21	....	56 39.1	56 9.8	55 42.4	55 17.6	54 52.4	54 24.2	54 0.4	53 47.4	53 33.5	....	....
	W.	S.	23	....	9 36.5	10 5.4	10 32.0	11 0.2	11 24.6	11 53.8	12 18.8	12 30.7	12 42.0	....	....
		N.	23	....	17 36.9	17 14.3	16 50.6	16 28.7	16 2.8	15 40.7	15 18.1	15 7.4	14 54.6	....	....
15	E.	N.	22	....	....	....	47 58.4	48 30.0	48 57.5	49 26.0	49 54.5	50 5.4	50 20.7	50 37.4	50 52.7
		S.	22	....	....	....	55 48.6	55 13.0	54 39.5	54 6.3	53 34.3	53 17.0	53 1.0	52 43.8	52 27.4
	W.	S.	23	....	....	....	53 34.0	54 7.6	54 42.2	55 13.3	55 44.1	56 3.0	56 16.6	56 36.0	56 53.4
		N.	0	....	....	....	1 21.1	0 55.4	0 24.2	59 55.8	59 28.1	59 15.0	58 59.9	58 46.6	58 28.0
15	E.	N.	4	....	....	16 10.0	16 30.5	......	17 11.5	17 34.2	17 53.4	18 5.5	....	....	....
		S.	4	....	....	22 30.2	22 7.1	....	21 20.0	20 57.0	20 35.0	20 24.5	....	....	....
	W.	S.	5	....	....	46 40.0	47 3.4	....	47 48.2	48 13.2	48 35.6	48 48.5	....	....	....
		N.	5	....	....	53 2.3	52 41.1	....	52 0.0	51 38.2	51 16.2	51 5.7	....	....	....
15	E.	S.	4 29 16.3	29 28.9	29 43.5	29 54.3	30 8.2	30 19.7	30 33.6	30 43.9	30 58.7	....	....	....	....
		N.	4 34 13.6	34 0.5	33 45.1	33 32.8	33 18.4	33 6.9	32 54.1	32 40.3	32 27.9	....	....	....	....
	W.	N.	7 7 36.1	7 49.1	8 3.0	8 15.3	8 30.2	8 43.4	8 55.7	9 9.5	9 22.1	....	....	....	....
		S.	7 12 31.1	12 18.6	12 4.5	11 53.9	11 40.5	11 28.3	11 14.4	11 3.0	10 49.7	....	....	....	....
16	E.	S.	17 56 43.5	57 44.4	58 14.9	....	....	0 20.4	0 53.6	1 28.2	2 0.3	2 15.7	2 33.8	2 49.6	3 6.9
		N.	18 13 50.1	12 1.2	11 8.5	....	....	8 7.6	7 24.8	6 42.3	6 2.6	5 45.6	5 26.6	5 7.0	4 47.7
	W.	N.	18 50 20.1	52 8.8	52 56.3	....	....	56 1.5	56 44.6	57 25.7	58 5.8	58 24.4	58 42.0	59 3.5	59 18.5
		S.	19 7 25.7	6 25.7	5 54.2	....	....	3 49.8	3 16.0	2 42.5	2 7.7	1 54.3	1 35.5	1 19.9	1 0.0

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ ″	"	° ′ ″		
10 Lacertæ	240.2	240.4	−0.769	−0.700	+38 27 4.12	−34.14	+38 26 29.98	B.	Good seeing.
	248.5	236.0							
	253.0	244.8	−0.688						Fair seeing.
	251.6	248.8							
14 Andromedæ	248.1	246.0	−0.800	−0.719	38 36 8.42	−31.49	38 35 36.93	B.	Fair seeing.
	253.9	243.2							
	256.0	248.0	−0.790						Fair seeing.
	254.1	250.9							
μ Aurigæ	253.8	252.3	−0.894	−0.902	38 20 33.20	+ 6.37	38 20 39.57	T	Fair seeing; diffuse; steady.
	261.2	248.4							
	266.8	256.7	−1.000						Tolerable seeing; diffuse; not quite steady.
	265.1	259.2							
θ Aurigæ	261.5	248.6	−0.981	−0.986	37 11 58.44	+11.10	37 12 9.54	T.	Fair seeing; diffuse; steady.
	257.6	254.8							
	268.6	261.6	−1.113						Good seeing.
	269.2	258.4							
40 Aurigæ	262.0	257.1	−1.194	−1.032	38 29 17.64	+12.21	38 29 29.85	T.	Poor seeing; faint; diffuse; not quite steady.
	268.0	253.8							
	269.6	258.8	−0.975						Good seeing; well defined; not quite steady.
	266.6	261.8							
22 Cygni	213.6	202.8	−0.506	−0.509	38 11 7.80	−33.06	38 10 34.74	T.	Good seeing; well defined; steady.
	208.8	211.5							
	218.4	220.2	−0.538						Fair seeing.
	225.6	215.2							
40 Cygni	216.9	207.1	−0.531	−0.564	38 3 57.78	−34.40	38 3 23.38	T.	Fair seeing; slightly diffuse.
	212.8	214.1							
	223.0	222.8	−0.631						Tolerable seeing.
	229.9	220.0							
72 Cygni	222.8	213.6	−0.550	−0.572	38 1 11.40	−35.51	38 0 35.89	T.	Fair seeing.
	218.8	219.2							
	230.4	228.8	−0.631						Very faint and diffuse; clouds.
	234.1	225.6							
α Lyræ	187.0	180.7	−0.281	−0.320	38 40 59.37	−27.36	38 40 32.01	B.	Fair seeing; clouds.
	184.0	185.8							
	187.3	189.2	−0.363						Faint at times; clouds.
	195.7	188.0							
40 Cygni	261.3	253.7	−0.669	−0.489	38 3 58.44	−34.55	38 3 23.89	T.	Fair seeing; full moon.
	260.7	257.6							
	272.2	270.0	−0.363						Fair seeing; diffuse; not quite steady.
	274.4	270.8							
1 Lacertæ	270.1	263.4	−0.875	−0.710	37 10 34.81	−35.36	37 9 59.45	B.	Poor seeing; moon full and high.
	271.5	264.2							
	284.0	275.9	−0.644						Poor seeing; image bad; unsteady.
	281.9	279.7							
10 Lacertæ	277.1	271.3	−0.788	0.675	38 27 4.50	−34.85	38 26 29.65	B.	Poor seeing: moon full and bright.
	278.5	271.7							
	280.4	277.2	−0.644						Poor seeing.
	283.2	276.1							
14 Andromedæ	283.1	272.7	−0.969	−0.866	38 36 9.72	−32.34	38 35 37.38	B.	Poor seeing; image much diffuse at times.
	281.1	276.0							
	283.5	279.6	−0.869						Poor seeing.
	287.2	277.2							
μ Aurigæ	274.8	280.8	−0.150	−0.129	38 20 34.57	+ 6.02	38 20 40.59	T.	Very diffuse; unsteady; light hazy clouds.
	285.6	277.2							
	295.2	294.0	−0.125						Very bad seeing; very diffuse; unsteady.
	294.8	294.0							
θ Aurigæ	285.2	278.8	−0.219	−0.343	37 11 59.24	+10.96	37 12 10.20	T.	Very diffuse; unsteady; light hazy clouds.
	282.6	285.5							
	301.4	297.4	−0.525						Bad seeing; very diffuse; unsteady.
	302.0	297.6							
α Lyræ	161.5	166.5	+0.650	+0.553	+38 40 58.95	−27.27	+38 40 31.68	T.	Fair seeing; diffuse; not quite steady.
	161.3	166.7							The first three threads are B. I, II.
	169.6	172.8	+0.450						1¼-inch aperture; diffuse; unsteady.
	173.6	177.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Oct. 16	E.	S.	19	23 42.7	24 0.5	24 18.3	24 36.9	24 53.6	25 12.6	25 29.7	25 47.6	25 55.9	26 4.3	....	....
		N.	19	30 7.0	29 45.6	29 25.6	29 7.8	28 48.3	28 30.0	28 10.5	27 50.9	27 42.4	27 34.0	....	....
	W.	N.	21	14 34.3	14 57.0	15 15.3	15 36.4	15 54.8	16 13.3	16 32.4	16 53.2	16 59.9	17 9.6	....	....
		S.	21	21 1.2	20 43.5	20 24.5	20 7.0	19 50.4	19 32.1	19 13.1	18 55.0	18 47.2	18 38.4	....	....
16	E.	N.	19	....	....	56 45.3	57 0.9	57 13.4	....	57 41.6	57 55.5	58 3.1	....	58 16.8	....
		S.	20	....	....	0 53.0	0 37.8	0 23.7	....	59 52.9	59 39.0	59 32.6	....	59 17.3	....
	W.	S.	22	....	....	17 37.5	17 53.1	18 7.1	....	18 37.5	18 50.9	18 58.3	....	19 13.5	....
		N.	22	....	....	21 44.5	21 31.5	21 17.1	....	20 48.4	20 34.1	20 27.7	....	20 11.8	....
16	E.	S.	20	....	....	....	....	....	....	30 46.8	31 4.0	31 11.7	31 21.0	31 29.9	31 38.9
		N.	20	....	....	....	....	....	....	33 22.2	33 4.4	32 55.9	32 48.4	32 39.0	32 31.3
	W.	N.	22	....	....	....	....	....	....	24 52.7	25 10.1	25 19.7	25 28.5	25 37.2	25 45.1
		S.	22	....	....	....	....	....	....	27 28.0	27 10.7	27 3.5	26 54.8	26 48.1	26 38.7
16	E.	N.	20 47 51.6	48 5.0	48 16.4	48 28.7	48 40.9	48 53.6	....	49 19.0	49 31.6	49 37.5	49 43.8	....	....
		S.	20 52 46.6	52 33.7	52 19.7	52 6.7	51 53.4	51 41.0	....	51 15.3	51 2.9	50 56.1	50 49.8	....	....
	W.	S.	23 27 15.4	27 29.0	27 41.7	27 54.6	28 7.7	28 20.4	....	28 46.5	29 0.0	29 5.0	29 11.7	....	....
		N.	23 32 10.9	31 58.5	31 45.8	31 33.8	31 21.7	31 8.7	....	30 43.5	30 29.9	30 24.8	30 17.9	....	....
16	E.	S.	21	....	....	49 4.4	49 30.0	49 52.0	50 16.9	50 41.0	51 5.5	51 14.9	21 27.7	51 38.8	51 51.9
		N.	21	....	....	56 8.9	55 41.4	55 16.0	54 47.8	54 21.6	53 54.6	53 44.0	53 31.2	53 18.1	53 3.7
	W.	N.	23	....	....	10 10.2	10 38.7	11 4.0	11 31.1	11 58.6	12 23.7	12 36.9	12 49.3	13 1.7	13 13.9
		S.	23	....	....	17 13.0	16 49.2	16 27.0	16 0.5	15 37.5	15 12.2	15 1.8	14 50.6	14 36.9	14 27.6
16	E.	S.	22	....	47 7.2	47 36.0	48 5.3	48 30.4	49 0.9	....	49 57.5	50 12.7	50 26.7	50 41.9	50 55.9
		N.	22	....	56 54.0	56 18.4	55 40.5	55 7.0	54 32.0	....	53 26.1	53 12.7	52 55.7	52 37.5	52 23.8
	W.	N.	23	....	52 28.3	53 3.5	53 40.3	54 15.1	54 49.6	....	55 55.3	56 12.0	56 27.0	56 41.8	56 54.9
		S.	0	....	2 14.1	1 46.3	1 16.4	0 52.9	0 22.2	....	59 24.7	59 9.0	58 53.3	58 40.0	58 26.2
16	E.	S.	4	....	....	....	16 29.9	....	17 11.4	17 37.0	17 55.0	18 5.4	18 17.4	18 27.3	....
		N.	4	....	....	....	21 59.5	....	21 12.8	20 48.7	20 28.3	20 17.7	20 5.0	19 53.6	....
	W.	N.	5	....	....	....	47 7.3	....	47 55.2	48 18.0	48 42.3	48 52.4	49 2.4	49 15.4	....
		S.	5	....	....	....	52 36.3	....	51 51.7	51 32.7	51 10.8	51 0.8	50 49.8	50 38.4	....
16	E.	N.	4 29 14.8	29 27.2	29 40.6	29 53.1	30 5.3	30 17.9	30 30.0	30 42.4	30 56.0	....	....	....	....
		S.	4 34 12.0	33 59.0	33 46.0	33 33.0	33 19.8	33 8.0	32 54.6	32 41.8	32 28.3	....	....	....	....
	W.	S.	7 7 33.0	7 47.1	8 1.2	8 13.7	8 27.6	8 40.6	8 52.8	9 4.8	9 17.7	....	....	....	....
		N.	7 12 31.9	12 19.8	12 6.0	11 55.2	11 41.0	11 28.8	11 17.0	11 4.6	10 51.0	....	....	....	....
16	E.	S.	5	14 20.8	14 45.6	15 7.7	15 37.0	16 2.4	16 26.3	16 49.5	17 16.0	17 27.0	17 39.5	....	....
		N.	5	23 30.9	23 1.0	22 29.8	22 2.0	21 35.9	21 8.3	20 38.4	20 11.3	19 57.8	19 43.9	....	....
	W.	N.	6	31 43.0	32 15.3	32 45.5	33 15.3	33 42.9	34 11.9	34 37.4	35 5.3	35 19.3	35 31.3	....	....
		S.	6	40 59.0	40 31.4	40 7.3	39 43.3	39 18.2	38 53.2	38 27.7	38 3.4	37 51.0	37 40.8	....	....
19	E.	N.	20	....	29 13.2	29 30.3	29 48.4	30 4.8	30 22.0	30 39.3	30 57.6	....	....	....	....
		S.	20	....	34 57.5	34 37.4	34 19.1	34 1.5	33 43.0	33 25.6	33 6.0	....	....	....	....
	W.	S.	22	....	23 13.0	23 30.4	23 49.6	24 7.7	24 25.8	24 43.8	25 2.0	....	....	....	....
		N.	22	....	28 55.0	28 38.0	28 20.2	28 3.4	27 47.8	27 30.1	27 12.6	....	....	....	....
19	E.	S.	20 47 49.4	48 2.9	48 16.0	48 29.0	48 41.7	48 53.4	49 6.1	49 18.9	49 31.4	....	....	....	....
		N.	20 52 41.4	52 28.0	52 14.5	52 0.4	51 47.4	51 35.0	51 22.0	51 8.8	50 56.0	....	....	....	....
	W.	N.	23 27 13.7	27 27.0	27 40.7	27 54.2	28 7.7	28 20.0	28 33.0	28 46.5	28 58.9	....	....	....	....
		S.	23 32 4.9	31 52.6	31 38.9	31 25.8	31 13.0	31 1.4	30 48.4	30 37.0	30 24.4	....	....	....	....
19	E.	N.	21	....	....	....	49 20.0	49 43.0	50 5.1	50 30.1	50 55.4	51 6.5	51 17.8	51 30.5	51 44.0
		S.	21	....	....	....	55 43.0	55 17.7	54 52.8	54 25.8	53 58.5	53 46.0	53 33.3	53 19.6	53 7.4
	W.	S.	23	....	....	....	10 27.0	10 54.5	11 20.0	11 46.4	12 13.6	12 25.8	12 39.1	12 51.4	13 4.8
		N.	23	....	....	....	16 47.8	16 26.5	16 4.0	15 39.7	15 15.9	15 3.8	14 54.0	14 40.0	14 27.5
19	E.	N.	22	....	46 58.3	47 28.3	47 55.5	48 22.6	48 48.0	49 16.6	49 46.6	50 1.6	50 16.0	50 30.9	50 46.7
		S.	22	....	56 59.1	56 22.0	55 46.8	55 13.0	54 38.8	54 6.5	53 33.7	53 17.9	53 1.2	52 45.0	52 25.5
	W.	S.	23	....	52 15.2	52 52.0	53 27.6	54 2.6	54 35.3	55 9.0	55 41.8	55 57.0	56 12.8	56 28.6	56 47.0
		N.	0	....	2 15.9	1 46.3	1 21.0	0 53.6	0 24.9	59 57.8	59 28.0	59 14.0	58 59.0	58 43.2	58 28.6
24	E.	N.	17 58 30.1	59 0.2	59 30.2	0 1.5	0 33.0	1 2.9	1 34.6	2 6.6	2 40.7	2 57.6	3 14.0	3 31.3	....
		S.	18 13 0.7	12 8.0	11 22.7	10 34.9	9 48.5	9 9.8	8 27.3	7 45.1	7 4.5	6 46.0	6 28.0	6 7.6	....
	W.	S.	18 52 49.0	53 40.0	54 30.9	55 15.4	56 2.7	56 44.4	57 24.9	58 5.3	58 46.0	59 3.5	59 22.7	59 43.5	....
		S.	19 7 22.1	6 51.4	6 21.0	5 49.4	5 18.6	4 49.4	4 16.4	3 44.9	3 10.3	2 53.4	2 37.4	2 20.5	....
24	E.	N.	19	....	....	....	....	....	25 58.7	26 16.8	26 35.0	26 43.8	26 52.5	....	....
		S.	19	....	....	....	....	....	29 26.4	29 6.3	28 47.2	28 39.4	28 29.0	....	....
	W.	S.	21	....	....	....	....	....	17 2.3	17 21.8	17 39.8	17 49.9	17 57.9	....	....
		N.	21	....	....	....	....	....	20 25.6	20 8.8	19 49.9	19 41.6	19 32.9	....	....
24	E.	S.	19	....	57 26.0	57 40.6	57 54.8	58 7.4	58 22.6	58 37.2	58 51.9	58 58.6	....	....	....
		N.	20	....	1 56.5	1 41.3	1 25.6	1 12.4	0 56.8	0 43.6	0 28.4	0 21.9	....	....	....
	W.	N.	22	....	18 16.3	18 31.9	18 47.0	19 0.5	19 15.5	19 30.4	19 45.7	19 52.7	....	....	....
		S.	22	....	22 49.7	22 33.7	22 20.1	22 7.0	21 52.0	21 37.7	21 23.8	21 17.7	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
40 Cygni	175.1	174.4	−0.006	+0.192	+38 3 58.69	−34.61	+38 3 24.08	T.	Fair seeing; tolerable image; not quite steady.
	178.2	178.8							
	186.8	188.4	+0.394						Poor seeing; very much diffuse; unsteady; moonlight.
	186.1	190.8							
τ Cygni	183.1	181.6	+0.006	−0.009	37 33 23.09	−35.76	37 32 47.33	T.	Diffuse and unsteady; bright moonlight.
	181.2	182.8							
	190.4	194.8	−0.025						Bad seeing; diffuse; unsteady; bright moonlight.
	197.6	192.8							
72 Cygni	182.4	185.2	+0.125	+0.099	38 1 11.87	−36.00	38 0 35.87	T.	Diffuse; unsteady; bright moonlight.
	185.2	184.4							
	197.6	192.8	+0.075						Bad seeing; diffuse; unsteady; bright moonlight.
	190.8	196.8							
1 Lacertæ	186.3	184.9	+0.138	+0.107	37 10 34.57	−35.49	37 9 59.08	T.	Fair image; not quite steady; bright moonlight.
	184.8	188.4							
	193.6	198.8	+0.081						Poor seeing; much diffuse; unsteady; bright moonlight.
	198.7	194.8							
10 Lacertæ	189.2	191.0	−0.038	+0.129	38 27 4.59	−35.00	38 26 29.59	T.	Diffuse; unsteady; bright moonlight.
	192.8	190.4							
	195.6	194.8	+0.300						Very much diffuse; unsteady; bright moonlight.
	193.2	198.8							
14 Andromedæ	193.2	194.8	−0.163	+0.043	38 36 9.49	−32.51	38 35 36.98	T.	Poor seeing; diffuse; unsteady; bright moonlight.
	197.1	192.9							
	198.8	195.6	+0.250						Poor seeing; diffuse; unsteady; bright moonlight.
	194.6	201.8							
μ Aurigæ	198.7	194.7	−0.125	+0.006	38 20 32.79	+ 5.98	38 20 38.77	B.	Poor seeing; moon.
	198.1	200.1							
	207.5	206.0	+0.138						Poor seeing; moon.
	205.6	209.3							
θ Aurigæ	199.0	200.0	+0.106	+0.097	37 11 59.41	+10.97	37 12 10.38	B.	Very poor seeing; moon.
	200.6	201.3							
	208.0	212.1	+0.094						Poor seeing; clouding over.
	212.0	209.4							
40 Aurigæ	203.5	203.7	−0.181	+0.061	38 29 17.74	+12.10	38 29 29.84	B.	Poor seeing; bright moon.
	207.1	204.0							
	210.2	209.0	+0.306						Poor seeing; bright moon.
	207.1	213.2							
72 Cygni	146.8	151.4	+0.300	+0.350	38 1 13.02	−36.41	38 0 36.61	B.	Fair seeing; passing clouds.
	148.9	149.1							
	151.6	152.1	+0.394						Good seeing.
	149.2	155.0							
1 Lacertæ	148.6	149.8	+0.275	+0.287	37 10 35.58	−35.97	37 9 59.61	B.	Faint at times; steady; clouds.
	148.0	151.2							
	151.9	156.1	+0.300						Steady; clouds.
	154.0	154.6							
10 Lacertæ	149.8	152.0	+0.056	+0.322	38 27 5.20	−35.54	38 26 29.66	B.	Good seeing.
	152.0	150.7							
	152.0	155.6	+0.581						Thin clouds; steady and undimmed.
	151.2	156.9							
14 Andromedæ	151.0	155.4	+0.113	+0.310	38 36 10.50	−33.12	38 35 37.38	B.	Good seeing.
	155.0	152.4							
	153.3	155.5	+0.500						Very fair seeing; light clouds; star unobscured.
	152.1	157.9							
α Lyræ	158.3	167.6	+0.738	+0.806	38 40 58.76	−26.63	38 40 32.13	B.	Very fair seeing; slightly diffuse.
	160.8	163.3							
	161.5	165.8	+0.863						Fair seeing; light clouds.
	160.2	169.7							
40 Cygni	161.6	170.0	+0.500	+0.545	38 3 58.98	−34.97	38 3 24.01	B.	Faint but steady; clouds.
	168.7	168.3							
	177.0	179.0	+0.594						Good seeing.
	175.5	183.0							
τ Cygni	170.7	171.8	+0.544	+0.529	+37 33 24.07	−36.49	+37 32 47.58	B.	Thin clouds; fair seeing.
	168.2	175.8							
	181.2	186.2	+0.525						Good seeing.
	182.4	185.8							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Oct. 24	E.	N.	20	....	....	....	....	....	31 15.3	31 31.9	31 52.4	32 1.0	32 9.4	32 19.0	....
		S.	20	....	....	....	....	....	34 39.0	34 21.0	34 2.0	33 54.0	33 44.1	33 34.6	....
	W.	S.	22	....	....	....	....	....	25 23.0	25 40.8	25 58.2	26 8.0	26 15.0	26 25.7	....
		N.	22	....	....	....	....	....	28 41.1	28 24.0	28 6.6	27 57.2	27 48.1	27 41.8	....
24	E.	S.	20 48 45.4	48 58.1	49 10.4	49 23.5	49 36.8	49 48.2	50 0.9	50 13.1	....	....	....	....	....
		N.	20 53 37.5	53 24.0	53 11.0	52 56.4	52 43.0	52 30.9	52 17.1	52 4.5	....	....	....	....	....
	W.	N.	23 28 8.0	28 22.0	28 35.0	28 49.1	29 2.0	29 14.5	29 27.2	29 40.7	....	....	....	....	....
		S.	23 33 1.0	32 48.6	32 35.9	32 22.6	32 9.9	31 58.5	31 46.0	31 32.9	....	....	....	....	....
24	E.	N.	21	....	49 32.0	49 55.6	50 18.7	50 41.6	51 4.5	51 29.4	51 53.4	....	52 16.0	....	52 41.5
		S.	21	....	57 31.7	57 4.9	56 37.6	56 10.3	55 44.0	55 18.2	54 51.8	....	54 28.5	....	53 59.8
	W.	S.	23	....	10 29.0	10 57.0	11 23.8	11 51.0	12 16.4	12 43.0	13 8.9	....	13 33.1	....	14 0.5
		N.	23	....	18 29.1	18 7.0	17 42.3	17 20.5	16 58.0	16 33.6	16 9.6	....	15 47.0	....	15 20.0
24	E.	N.	22	....	47 57.5	48 27.0	48 54.4	49 19.0	49 47.8	50 16.0	50 45.0	....	51 11.9	....	51 45.0
		S.	22	....	57 52.1	57 16.3	56 41.6	56 4.8	55 32.5	54 59.9	54 26.2	....	53 57.0	....	53 21.4
	W.	S.	23	....	53 10.2	53 46.4	54 22.9	54 57.2	55 30.6	56 5.0	56 39.9	....	57 9.7	....	57 42 0
		N.	0	....	3 6.8	2 40.4	2 12.1	1 43.9	1 18.8	0 48.3	0 20.0	....	59 52.8	....	59 20.9
26	E.	N.	17	58 58.9	59 29.3	59 59.9	0 31.3	1 1.9	1 33.7	2 6.7	2 39.7	2 55.1	3 12.2	3 29.6	3 48.2
		S.	18	12 3.9	11 16.6	10 30.4	9 46.0	9 4.5	8 23.6	7 41.8	7 2.2	6 43.1	6 24.7	6 4.6	5 44.9
	W.	S.	18	53 41.3	54 29.0	55 16.8	56 2.0	56 43.6	57 24.0	58 5.8	58 45.7	59 4.4	59 23.6	59 43.8	0 2.4
		N.	19	6 50.1	6 20.1	5 48.4	5 16.5	4 46.4	4 13.9	3 43.0	3 8.8	2 52.0	2 34.9	2 20.2	1 59.6
26	E.	S.	19 56 54.3	57 9.4	57 23.2	57 37.6	57 51.9	58 5.3	58 19.9	58 34.7	58 48.9	....	....	....	....
		N.	20 2 25.6	2 11.2	1 56.0	1 41.3	1 25.7	1 10.6	0 55.0	0 40.8	0 25.3	....	....	....	....
	W.	N.	22 17 43.9	17 59.2	18 14.0	18 29.4	18 44.3	18 58.4	19 14.3	19 28.2	19 42.6	....	....	....	....
		S.	22 23 15.6	23 1.7	22 46.7	22 32.0	22 18.0	22 5.3	21 50.9	21 36.8	21 22.8	....	....	....	....
26	E.	N.	20 48 42.5	48 55.8	49 8.5	49 19.6	49 32.6	49 45.1	49 56.4	50 9.8	50 21.5	....	....	....	....
		S.	20 53 37.0	53 23.8	53 10.5	52 56.8	52 44.2	52 31.6	52 19.0	52 6.4	51 53.6	....	....	....	....
	W.	S.	23 28 5.0	28 17.5	28 30.9	28 44.3	28 57.0	29 10.2	29 22.6	29 36.5	29 48.2	....	....	....	....
		N.	23 32 59.7	32 47.0	32 34.2	32 21.0	32 8.9	31 57.4	31 45.1	31 32.6	31 20.0	....	....	....	....
26	E.	S.	21	....	49 32.4	49 57.6	50 22.4	50 43.3	51 6.6	51 31.0	51 55.2	52 7.2	52 19.7	52 31.0	....
		N.	21	....	57 27.3	56 58.4	56 30.7	56 5.4	55 38.0	55 11.7	54 46.3	54 33.8	54 19.8	54 8.4	....
	W.	N.	23	....	10 29.1	10 57.7	11 26.0	11 50.2	12 19.9	12 45.2	13 11.2	13 24.3	13 36.6	13 49.0	....
		S.	23	....	18 24.7	17 59.4	17 38.0	17 16.0	16 49.7	16 27.1	16 2.5	15 51.8	15 39.2	15 27.9	....
26	E.	S.	22	....	....	....	48 54.8	49 21.0	49 49.1	50 21.0	50 49.0	51 2.1	51 15.6	51 30.7	....
		N.	22	....	....	....	56 34.7	56 0.2	55 24.2	54 50.8	54 19.2	54 4.4	53 47.6	53 31.4	....
	W.	N.	23	....	....	....	54 25.5	54 58.8	55 32.9	56 6.0	56 41.8	56 56.0	57 11.5	57 28.2	....
		S.	0	....	....	....	2 6.0	1 39.7	1 11.0	0 41.2	0 13.8	0 0.5	59 45.7	59 29.2	....
29	E.	S.	6	....	....	6 34.3	7 1.3	7 27.9	7 55.5	8 23.2	8 51.1	....	9 18.9	....	9 46.8
		N.	6	....	....	14 54.9	14 21.3	13 48.9	13 16.0	12 44.4	12 12.8	....	11 43.1	....	11 13.4
	W.	N.	7	....	....	14 51.8	15 25.7	15 56.1	16 30.1	17 2.3	17 34.0	....	18 3.5	....	18 33.2
		S.	7	....	....	23 12.0	22 44.6	22 18.2	21 50.5	21 22.7	20 55.1	....	20 28.4	....	19 59.2
29	E.	N.	5 47 23.0	47 35.0	47 46.9	47 58.2	48 9.9	48 21.8	48 33.4	48 45.2	48 57.3	....	....	....	....
		S.	5 52 1.8	51 48.6	51 36.0	51 23.8	51 11.4	50 59.5	50 47.7	50 35.4	50 23.5	....	....	....	....
	W.	S.	8 35 47.0	35 59.8	36 12.1	36 24.5	36 36.9	36 48.6	37 0.4	37 12.7	37 25.5	....	....	....	....
		N.	8 40 26.7	40 14.7	40 2.7	39 50.9	39 38.7	39 27.0	39 15.9	39 3.9	38 52.1	....	....	....	....
29	E.	N.	7 51 37.7	51 51.4	52 3.8	52 17.0	52 29.6	52 41.8	52 54.9	53 7.4	53 20.6	....	....	....	....
		S.	7 56 42.7	56 28.7	56 14.9	56 1.3	55 48.1	55 35.0	55 21.8	55 8.5	54 55.0	....	....	....	....
	W.	S.	10 25 43.4	25 57.5	26 11.1	26 24.4	26 38.0	26 51.0	27 3.9	27 17.1	27 30.9	....	....	....	....
		N.	10 30 49.6	30 36.5	30 23.2	30 10.6	29 57.8	29 45.4	29 32.7	29 19.3	29 5.7	....	....	....	....
30	E.	N.	17 58 10.4	58 41.4	59 10.7	59 41.0	0 12.6	0 43.6	1 14.2	1 47.1	2 21.1	....	2 53.7	....	3 30.7
		S.	18 12 41.9	11 50.4	11 1.9	10 16.6	9 31.6	8 48.6	8 8.4	7 27.5	6 46.4	....	6 8.1	....	5 28.0
	W.	S.	18 52 29.9	53 20.1	54 7.1	54 53.0	55 38.5	56 22.9	57 3.2	57 44.9	58 25.9	....	59 2.9	....	59 42.2
		N.	19 7 1.8	6 31.2	6 1.6	5 31.5	4 59.1	4 28.2	3 57.1	3 24.0	2 50.1	....	2 17.3	....	1 40.0
30	E.	N.	19	....	....	57 16.5	57 30.2	57 44.6	57 58.5	58 12.7	58 27.2	58 34.5	58 40.4	58 47.9	....
		S.	20	....	....	1 24.5	1 9.2	0 54.8	0 40.7	0 25.8	0 11.0	0 3.5	59 56.8	59 48.9	....
	W.	S.	22	....	....	18 6.7	18 22.6	18 37.4	18 51.5	19 4.8	19 20.8	19 27.4	19 34.7	19 42.5	....
		N.	22	....	....	22 15.5	22 1.2	21 46.9	21 33.3	21 19.0	21 4.5	20 57.8	20 50.9	20 43.3	....
30	E.	S.	20	....	....	....	30 26.6	30 43.2	31 0.2	31 18.2	....	31 43.4	31 52.4	32 1.2	....
		N.	20	....	....	....	34 49.9	34 31.9	34 13.3	33 54.4	....	33 28.6	33 18.6	33 9.6	....
	W.	N.	22	....	....	....	24 27.2	24 45.2	25 3.2	25 22.7	....	25 49.4	25 58.1	26 7.0	....
		S.	22	....	....	....	28 50.8	28 35.0	28 17.5	27 59.0	....	27 33.1	27 24.4	27 15.8	....
30	E.	N.	20 48 23.2	48 36.3	48 48.5	49 0.1	49 12.5	49 24.7	49 37.0	49 49.5	50 2.6	....	50 15.1	....	....
		S.	20 53 18.0	53 5.0	52 51.0	52 39.3	52 24.9	52 12.6	52 0.1	51 47.0	51 33.8	....	51 21.7	....	....
	W.	S.	23 27 44.9	27 58.9	28 12.4	28 24.9	28 37.7	28 49.8	29 2.6	29 15.3	29 28.7	....	29 40.9	....	....
		N.	23 32 39.9	32 28.0	32 14.9	32 3.2	31 50.2	31 38.0	31 25.5	31 12.6	31 0.6	....	30 48.7	....	....

OBJECT.	LEVEL READINGS.		INCLINATION	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ' "	"	° ' "		
72 Cygni	170.8	177.2	+0.531	+0.574	+38 1 13.22	−36.89	+38 0 36.33	B.	Good seeing.
	173.5	175.6							
	182.4	185.6	+0.625						Good seeing.
	180.9	187.7							
1 Lacertæ	173.1	176.8	+0.644	+0.528	37 10 35.63	−36.63	37 9 59.00	B.	Good seeing.
	172.9	179.5							
	187.3	190.4	+0.431						Good seeing.
	188.0	191.8							
10 Lacertæ	179.4	183.8	+0.444	+0.488	38 27 6.13	−36.32	38 26 29.81	B.	Very good seeing.
	181.6	184.3							
	184.6	189.5	+0.538						Good seeing.
	186.7	190.4							
14 Andromedæ	183.9	187.5	+0.425	+0.379	38 36 11.84	−34.07	38 35 37.77	B.	Good seeing.
	184.8	188.0							
	188.7	192.2	+0.338						Good seeing.
	191.2	193.1							
α Lyræ	159.4	168.1	+0.538	+0.695	38 40 57.98	−26.33	38 40 31.65	B.	Excellent seeing; thin clouds.
	164.2	164.1							
	164.6	166.9	+0.844						Little unsteady; clouds.
	161.4	172.6							
τ Cygni	175.5	174.9	+0.400	+0.340	37 33 23.66	−36.51	37 32 47.15	B.	Clear; steady; light clouds; field unilluminated.
	172.6	179.6							
	181.6	185.2	+0.288						Good seeing.
	184.1	185.1							
1 Lacertæ	176.2	181.2	+0.344	+0.249	37 10 37.04	−36.76	37 10 0.28	B.	Good seeing; clear.
	179.5	180.0							
	188.2	188.6	+0.163						Fair seeing.
	188.0	190.2							
10 Lacertæ	182.8	180.4	+0.069	+0.208	38 27 6.29	−36.49	38 26 29.80	B.	Fair seeing.
	180.3	183.8							
	185.6	189.1	+0.350						Fair seeing.
	187.2	189.3							
14 Andromedæ	185.9	185.0	−0.025	+0.146	38 36 11.70	−34.32	38 35 37.38	B.	Fair seeing.
	186.8	187.3							
	189.7	192.0	+0.319						Tolerable seeing.
	189.5	192.3							
60 Aurigæ	169.6	161.2	−0.513	−0.456	38 34 40.02	+16.97	38 34 56.99	T.	Fair seeing; not quite steady.
	165.3	165.5							
	164.0	165.2	−0.394						Fair seeing; well defined.
	168.7	161.2							
65 Aurigæ	165.2	165.2	−0.444	−0.581	36 58 25.61	+19.23	36 58 44.84	T.	Good seeing; steady; well defined.
	168.9	161.8							
	172.8	163.2	−0.731						Good seeing; steady; well defined.
	169.6	167.5							
38 Lyncis	166.8	165.1	−0.344	−0.394	37 17 22.54	+26.19	37 17 48.73	T.	Good seeing; steady; well defined.
	170.4	166.6							
	173.2	166.4	−0.450						Good seeing; faint.
	169.5	169.1							
α Lyræ	145.8	137.6	−0.931	−0.538	38 40 57.93	−25.86	38 40 32.07	T.	Good seeing.
	145.6	138.9							
	145.2	139.2	-0.125						Very good seeing.
	141.6	145.6							
τ Cygni	147.6	149.2	−0.500	−0.101	37 33 24.65	−36.58	37 32 48.07	T.	Good seeing; steady; well defined.
	154.5	144.9							
	162.8	157.2	+0.300						Diffuse.
	151.2	161.6							
72 Cygni	154.8	146.2	−0.469	−0.158	38 1 13.16	−37.09	38 0 36.07	T.	Good seeing; steady; well defined.
	151.3	152.4							
	151.2	161.6	+0.156						Slightly diffuse.
	165.2	157.3							
1 Lacertæ	152.4	153.2	−0.500	−0.451	+37 10 36.44	−37.01	+37 9 59.43	T.	Good seeing; steady; well defined.
	158.4	149.6							
	166.8	160.3	−0.406						Good seeing; slightly diffuse.
	163.2	163.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Oct. 30	E.	S.	21	....	49 14.2	49 38.4	50 2.3	50 24.2	50 48.5	51 13.1	51 37.3	....	51 59.8	....	52 24.8
		N.	21	....	57 11.9	56 39.1	56 13.0	55 48.5	55 20.8	54 53.9	54 27.8	....	54 2.0	....	53 36.4
	W.	N.	23	....	10 10.3	10 40.4	11 7.1	11 32.6	12 0.7	12 26.3	12 52.4	....	13 18.0	....	13 42.6
		S.	23	....	18 5.3	17 40.6	17 17.0	16 56.0	16 30.7	16 6.9	15 43.0	....	15 19.2	....	14 54.4
30	E.	N.	5	....	15 17.6	15 40.0	16 3.5	....	16 53.3	17 16.6	17 42.3	....	18 6.5	....	....
		S.	5	....	23 40.8	23 10.6	22 42.5	....	21 45.5	21 17.0	20 49.0	....	20 22.9	....	....
	W.	S.	6	....	32 42.0	33 9.3	33 37.9	....	34 33.6	35 3.9	35 30.4	....	35 56.6	....	....
		N.	6	....	41 6.8	40 41.6	40 18.0	....	39 29.0	39 3.8	38 39.8	....	38 14.6	....	....
30	E.	N.	6	....	6 2.2	6 27.4	6 54.1	7 21.6	7 47.6	8 14.7	8 43.0	....	....	....	....
		S.	6	....	15 33.0	14 59.0	14 24.5	13 51.5	13 19.6	12 48 4	12 16.3	....	....	....	....
	W.	S.	7	....	14 10.2	14 43.0	15 16.6	15 50.2	16 23.3	16 54.8	17 27.4	....	....	....	....
		N.	7	....	23 37.9	23 13.3	22 48.1	22 19.0	21 52.8	21 24.8	20 57.7	....	....	....	....
30	E.	S.	5 46 57.8	47 22.0	47 34.3	47 46.4	47 59.8	48 10.8	48 22.0	48 33.3	48 45.6	....	....	....	....
		N.	5 52 25.3	51 59.0	51 46.5	51 33.9	51 21.0	51 8.3	50 55.7	50 44.1	50 32.0	....	....	....	....
	W.	N.	8 35 21.5	35 46.3	35 58.8	36 12.5	36 25.0	36 37.8	36 49.0	37 2.2	37 13.1	....	....	....	....
		S.	8 40 48.6	40 24.6	40 12.0	40 0.2	39 47.5	39 35.5	39 24.3	39 12.6	38 59.8	....	....	....	....
31	E.	N.	17	58 37.2	59 8.3	....	0 9.1	0 40.8	....	1 44.1	2 18.4	....	2 50.7	....	3 26.6
		S.	18	11 47.8	10 59.0	....	9 29.1	8 47.4	....	7 24.0	6 43.6	....	6 6.1	....	5 28.0
	W.	S.	18	53 18.7	54 7.0	....	55 36.0	56 20.5	....	57 43.9	58 24.0	....	59 1.9	....	59 41.3
		N.	19	6 29.6	5 59.6	....	4 58.3	4 28.0	....	3 22.5	2 48.4	....	2 15.4	....	1 40.0
31	E.	S.	20 48 22.9	48 35.6	48 48.0	....	49 14.0	....	49 38.6	49 51.9	50 3.9	....	....	....	....
		N.	20 53 14.2	53 1.1	52 47.6	....	52 21.0	....	51 54.8	51 41.9	51 29.0	....	....	....	....
	W.	N.	23 27 45.6	27 58.4	28 11.5	....	28 38.9	....	29 4.6	29 17.1	29 30.4	....	....	....	....
		S.	23 32 37.0	32 24.4	32 12.0	....	31 46.6	....	31 21.0	31 9.4	30 56.8	....	....	....	....
31	E.	N.	21	....	49 10.0	49 32.2	49 55.0	50 17.9	50 41.7	51 5.5	51 30.1	....	51 53.7	....	52 18.8
		S.	21	....	57 11.0	56 44.4	56 17.0	55 49.1	55 23.8	54 57.0	54 29.8	....	54 5.1	....	53 39.2
	W.	S.	23	....	10 4.4	10 31.0	10 58.0	11 26.3	11 51.5	12 18.9	12 43.6	....	13 9.8	....	13 36.2
		N.	23	....	18 6.7	17 43.8	17 20.8	16 57.6	16 33.8	16 10.2	15 47.4	....	15 23.5	....	14 58.3
31	E.	N.	22	....	....	....	....	....	....	49 52.6	50 22.0	50 37.8	50 52.1	51 7.7	51 21.8
		S.	22	....	....	....	....	....	....	54 36.6	54 4.9	53 47.9	53 33.0	53 17.0	53 0.1
	W.	S.	23	....	....	....	....	....	....	55 42.0	56 17.1	56 30.7	56 47.9	57 3.5	57 19.9
		N.	0	....	....	....	....	....	....	0 27.3	59 58.3	59 43.9	59 29.0	59 13.0	58 58.6
31	E.	N.	23	....	....	....	46 12.4	46 27.9	46 43.6	....	47 17.7	47 25.0	47 32.8	....	....
		S.	23	....	....	....	50 22.1	50 4.6	49 49.0	....	49 15.0	49 6.8	48 59.6	....	....
	W.	S.	1	....	....	....	49 27.0	49 44.0	50 0.5	....	50 34.0	50 42.6	50 50.6	....	....
		N.	1	....	....	....	53 37.8	53 21.5	53 6.0	....	52 33.2	52 25.3	52 17.3	....	....
31	E.	N.	5	14 53.9	15 17.0	15 41.3	16 4.5	16 30.3	16 54.2	17 18.0	17 42.9	....	18 8.1	....	18 34.8
		S.	5	24 6.3	23 35.9	23 9.0	22 38.5	22 11.6	21 43.2	21 15.0	20 47.0	....	20 22.4	....	19 54.3
	W.	S.	6	32 13.6	32 44.5	33 12.1	33 41.2	34 9.9	34 37.1	35 4.3	35 32.6	....	35 57.8	....	36 25.2
		N.	6	41 27.4	41 3.9	40 41.1	40 16.9	39 52.9	39 28.9	39 3.7	38 39.2	....	38 15.5	....	37 45.9
31	E.	N.	6 5 10.3	5 36.5	6 3.0	6 29.2	6 54.0	7 21.6	7 49.5	8 16.0	8 44.6	....	9 12.0	....	9 41.3
		S.	6 16 43.3	16 6.2	15 30.9	14 57.4	14 22.7	13 50.1	13 19.1	12 46.9	12 14.2	....	11 45.1	....	11 11.8
	W.	S.	7 12 59.3	13 34.4	14 10.0	14 42.0	15 17.1	15 49.7	16 23.2	16 53.3	17 27.7	....	17 56.2	....	18 28.4
		N.	7 24 33.6	24 6.7	23 39.4	23 15.2	22 47.3	22 20.1	21 53.7	21 26.4	20 58.1	....	20 29.4	....	20 1.3
31	E.	S.	5 47 20.6	47 32.1	....	47 56.7	48 8.8	48 19.5	48 32.5	48 44.0	48 56.0	....	....	....	....
		N.	5 51 59.4	51 46.0	....	51 20.5	51 7.9	50 57.0	50 44.0	50 31.9	50 19.8	....	....	....	....
	W.	N.	8 35 44.5	35 59.5	....	36 24.6	36 35.9	36 48.3	37 0.5	37 13.0	37 25.7	....	....	....	....
		S.	8 40 24.8	40 11.3	....	39 46.4	39 34.2	39 23.7	39 10.9	38 59.6	38 47.6	....	....	....	....
31	E.	N.	7	38 22.9	38 46.0	39 7.0	39 30.0	39 51.9	40 15.0	40 37.4	41 0.4	....	41 22.3	....	....
		S.	7	46 48.7	46 22.7	45 56.9	45 31.1	45 4.5	44 41.4	44 15.8	43 50.9	....	43 27.0	....	....
	W.	S.	9	3 3.9	3 29.3	3 54.9	4 20.3	4 46.0	5 12.9	5 35.7	6 3.4	....	6 25.9	....	....
		N.	9	11 30.3	11 7.7	10 47.3	10 26.0	10 3.1	9 40.3	9 16.3	8 53.7	....	8 31.5	....	....
Nov. 1	E.	S.	19	....	....	57 16.2	57 30.3	57 43.8	57 58.3	58 12.5	58 26.7	58 33.2	58 40.2	....	....
		N.	20	....	....	1 18.8	1 4.0	0 50.3	0 35.6	0 20.6	0 6.2	59 59.4	59 51.7	....	....
	W.	N.	22	....	....	18 8.4	18 23.8	18 37.2	18 52.6	19 6.9	19 22.1	19 28.7	19 35.7	....	....
		S.	22	....	....	22 9.2	21 55.7	21 42.5	21 27.6	21 13.8	20 59.4	20 52.2	20 46.0	....	....
1	E.	N.	20	....	....	....	....	30 38.6	30 54.7	31 12.3	31 29.6	31 40.2	31 46.9	31 56.2	32 5.2
		S.	20	....	....	....	....	34 32.4	34 14.2	33 56.4	33 38.2	33 29.5	33 20.6	33 11.1	33 1.4
	W.	S.	22	....	....	....	....	24 38.9	24 57.5	25 15.2	25 34.4	25 43.3	25 51.3	26 1.8	26 10.3
		N.	22	....	....	....	....	28 34.7	28 17.8	28 0.9	27 43.3	27 34.6	27 26.4	27 16.8	27 7.4
1	E.	S.	20 48 22.0	48 34.6	48 46.4	48 59.9	49 12.8	49 23.9	49 37.1	49 49.8	50 2.4	....	....	....	....
		N.	20 53 14.2	33 1.0	52 48.0	52 34.3	52 21.2	52 9.0	51 54.8	51 42.7	51 29.9	....	....	....	....
	W.	N.	23 27 44.0	27 57.7	28 11.2	28 24.7	28 37.0	28 50.2	29 3.6	29 16.5	29 29.5	....	....	....	....
		S.	23 32 36.6	32 24.2	32 11.5	31 58.5	31 46.1	31 34.0	31 21.0	31 8.0	30 56.6	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
10 Lacertæ	162.8	152.8	−0.656	−0.509	+38 27 6.00	−36.82	+38 26 29.18	T.	Good seeing; steady; well defined.
	158.9	158.4							
	162.8	162.7	−0.356						Good seeing; slightly diffuse.
	166.4	160.8							
40 Aurigæ	174.7	174.8	−0.569	−0.498	38 29 18.37	+11.74	38 29 30.11	B.	Tolerable seeing; diffuse.
	181.4	172.2							
	186.9	180.0	−0.431						Poor seeing; bad image.
	184.4	184.4							
60 Aurigæ	181.3	180.0	−0.506	−0.445	38 34 40.02	+17.01	38 34 57.03	B.	Poor seeing; bad image.
	186.5	179.7							
	188.6	184.0	−0.388						Poor seeing.
	188.0	186.4							
65 Aurigæ	183.7	174.4	−0.581	−0.493	36 58 25.68	+19.31	36 58 44.99	B.	Tolerable seeing; bad image; transits over threads B to VIII.
	180.2	180.2							
	191.6	188.8	−0.425						Fair seeing; light clouds.
	192.3	188.3							
α Lyræ	141.8	147.1	+0.056	+0.098	38 40 57.90	−25.76	38 40 32.14	B.	Unsteady; at times obscured; drifting clouds.
	146.0	141.6							
	150.5	145.7	+0.138						Steady; at times obscured; drifting clouds.
	146.6	153.6							
1 Lacertæ	166.6	159.7	−0.300	−0.316	37 10 36.10	−37.10	37 9 59.00	B.	Fair image when visible; driving clouds.
	162.7	164.8							
	179.2	177.2	−0.338						Fair seeing; strong wind.
	180.3	176.9							
10 Lacertæ	167.6	168.0	−0.344	−0.337	38 27 6.30	−36.93	38 26 29.37	B.	Fair seeing; strong wind.
	172.4	166.5							
	179.2	174.2	−0.331						Tolerable seeing; high wind.
	178.4	177.1							
14 Andromedæ .	175.6	173.6	−0.456	−0.443	38 36 10.80	−34.90	38 35 35.90	B.	Fair seeing; high wind.
	178.5	173.2							
	183.1	178.0	−0.431						Tolerable seeing; high wind.
	182.2	180.4							
μ Andromedæ .	179.8	179.2	−0.419	−0.417	37 52 20.23	−28.29	37 51 51.94	B.	Fair seeing; very steady; little diffuse; high wind.
	183.1	177.0							
	190.2	187.8	−0.425						Fair seeing; wind gone down.
	192.0	187.6							
40 Aurigæ	202.8	206.3	−0.406	−0.417	38 29 17.81	+11.75	38 29 29.56	T.	Fair seeing.
	211.0	201.0							
	213.6	205.2	−0.444						Poor seeing; diffuse; unsteady.
	209.2	210.5							
60 Aurigæ	207.2	208.5	−0.519	−0.445	38 34 39.67	+17.06	38 34 56.73	T.	Bad seeing; diffuse; unsteady.
	214.0	204.4							
	213.7	206.8	−0.388						Fair seeing.
	209.7	210.4							
65 Aurigæ	211.2	202.3	−0.456	−0.320	36 58 25.56	+19.40	36 58 44.96	T.	Bad seeing.
	206.8	208.4							
	210.9	213.2	−0.206						Fair seeing; slightly diffuse; not quite steady.
	215.2	209.6							
Groomb. 1450	210.8	209.6	−0.588	−0.398	38 24 34.31	+25.06	38 24 59.37	T.	Poor seeing; diffuse; unsteady.
	214.6	206.4							
	215.4	210.4	−0.225						Exceedingly faint.
	213.3	214.7							
τ Cygni	211.5	205.0	−0.144	−0.179	37 33 24.02	−36.68	37 32 47.34	T.	Good seeing.
	206.8	211.0							
	217.2	219.2	−0.225						Good seeing.
	221.2	215.6							
72 Cygni	209.6	212.8	−0.419	−0.374	38 1 13.26	−37.20	38 0 36.06	T.	Diffuse; not quite steady.
	216.7	206.8							
	218.4	218.8	−0.350						Good seeing.
	221.6	215.6							
1 Lacertæ	217.2	207.4	−0.488	−0.450	+37 10 36.14	−37.18	+37 9 58.96	T.	Good seeing.
	212.4	214.4							
	219.9	220.8	−0.444						Slightly diffuse; not quite steady.
	225.2	217.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Nov. 1	E.	N.	21	......	......	49 32.4	49 56.4	50 20.2	50 43.0	51 7.2	51 31.0	......	51 54.3	......	52 20.5
		S.	21	......	......	56 43.7	56 16.7	55 49.0	55 22.7	54 57.0	54 30.5	......	54 5.1	......	53 38.7
	W.	S.	23	......	......	10 31.8	10 58.5	11 25.5	11 51.1	12 18.9	12 44.7	......	13 10.0	......	13 36.4
		N.	23	......	......	17 42.4	17 19.0	16 56.2	16 32.6	16 9.6	15 45.0	......	15 21.7	......	14 55.6
1	E.	N.	22	......	......	......	48 30.4	48 59.3	49 25.2	49 53.0	50 23.4	50 39.0	50 52.1	51 8.3	51 24.9
		S.	22	......	......	......	56 20.4	55 46.9	55 11.7	54 37.6	54 6.2	53 49.6	53 34.4	53 17.6	53 1.2
	W.	S.	23	......	......	......	53 57.3	54 32.8	55 5.7	55 39.7	56 12.5	56 28.6	56 44.8	57 1.6	57 17.7
		N.	0	......	......	......	1 49.6	1 21.5	0 53.2	0 24.5	59 55.3	59 41.5	59 26.2	59 11.9	58 56.6
1	E.	S.	5	......	15 17.3	15 42.7	16 7.4	16 29.5	16 54.8	17 20.0	17 45.3	......	18 8.4	......	......
		N.	5	......	23 35.0	23 0.9	22 32.7	22 5.8	21 37.7	21 9.2	20 42.4	......	20 17.5	......	......
	W.	N.	6	......	32 44.0	33 14.8	33 43.4	34 10.6	34 40.5	35 7.8	35 34.4	......	35 59.4	......	......
		S.	6	......	41 0.3	40 34.4	40 10.7	39 47.0	39 22.5	38 56.0	38 31.4	......	38 7.7	......	......
1	E.	N.	5 46 32.3	46 55.6	47 19.9	47 30.7	47 42.9	47 54.4	48 6.0	48 18.2	48 29.5	48 41.8	48 53.8	......	......
		S.	5 52 47.2	52 22.3	51 57.6	51 46.0	51 33.0	51 21.3	51 8.6	50 56.4	50 44.0	50 32.4	50 20.0	......	......
	W.	S.	8 34 54.0	35 19.0	35 43.7	35 56.7	36 8.4	36 20.4	36 32.7	36 45.2	36 56.8	37 8.8	37 21.7	......	......
		N.	8 41 9.8	40 46.4	40 23.4	40 11.6	39 59.8	39 47.1	39 35.7	39 24.4	39 12.8	39 0.6	38 48.6	......	......
1	E.	S.	7	......	38 44.3	39 10.3	39 31.0	39 51.8	40 16.1	40 38.9	41 0.6	......	41 23.2	......	......
		N.	7	......	46 18.8	45 52.2	45 26.1	45 2.6	44 35.5	44 10.0	43 45.6	......	43 22.0	......	......
	W.	N.	9	......	3 31.3	3 58.5	4 25.0	4 48.0	5 15.5	5 39.9	6 5.4	......	6 28.9	......	......
		S.	9	......	11 4.6	10 39.7	10 18.5	9 56.6	9 33.0	9 10.1	8 47.5	......	8 25.4	......	......
3	E.	S.	17 58 7.3	58 39.4	59 9.2	59 42.6	0 13.3	0 44.7	1 17.7	1 50.2	2 24.0	......	2 57.2	......	......
		N.	18 12 21.5	11 29.5	10 42.5	9 51.4	9 9.2	8 28.6	7 45.9	7 4.3	6 25.8	......	5 49.7	......	......
	W.	N.	18 52 38.0	53 27.3	54 14.5	55 5.0	55 48.3	56 28.5	57 13.0	57 53.7	58 33.1	......	59 10.1	......	......
		S.	19 6 51.8	6 20.0	5 50.1	5 18.0	4 45.1	4 16.3	3 41.6	3 9.4	2 35.4	......	2 2.7	......	......
3	E.	S.	20	......	29 46.2	30 6.0	30 22.3	30 38.3	30 56.2	31 13.8	31 30.6	......	31 47.9	......	......
		N.	20	......	35 23.8	35 4.6	34 45.2	34 27.3	34 7.5	33 50.0	33 32.1	......	33 15.3	......	......
	W.	N.	22	......	23 45.7	24 5.5	24 23.7	24 41.3	25 0.1	25 18.3	25 36 2	......	25 54.7	......	......
		S.	22	......	29 21.7	29 4.4	28 46.8	28 30.9	28 14.0	27 55.8	27 38.5	......	27 21.4	......	......
3	E.	N.	20	48 19.0	......	48 44.0	48 55.5	49 8.9	49 21.0	49 32.8	49 45.4	......	49 58.3	......	......
		S.	20	53 13.0	......	52 46.8	52 33.8	52 20.2	52 8.4	51 56.0	51 42.7	......	51 29.9	......	......
	W.	S.	23	27 41.9	......	28 7.0	28 20.6	28 33.0	28 45.9	28 59.3	29 12.4	......	29 25.6	......	......
		N.	23	32 36.5	......	32 11.0	31 58.5	31 46.1	31 33.5	31 21.3	31 9.1	......	30 56.5	......	......
3	E.	S.	21	......	49 9.5	49 33.4	......	50 19.5	50 44.7	51 8.0	51 31.6	......	51 56.1	......	52 20.3
		N.	21	......	57 5.7	56 33.9	......	55 43.2	55 15.4	54 50.1	54 24.3	......	53 57.0	......	53 35.0
	W.	N.	23	......	10 4.3	10 33.6	......	11 25.9	11 57.3	12 20.9	12 49.1	......	13 14.7	......	13 39.3
		S.	23	......	18 2.7	17 37.7	......	16 51.9	16 29.1	16 3.0	15 40.1	......	15 16.8	......	14 50.5
3	E.	S.	22	......	......	......	48 31.9	48 58.9	49 28.3	49 57.6	50 26.6	50 40.2	50 54.2	51 10.3	51 23.6
		N.	22	......	......	......	56 11.2	55 39.5	55 1.8	54 29.1	53 55.5	53 39.6	53 25.0	53 9.6	52 55.3
	W.	N.	23	......	......	......	54 3.5	54 37.6	55 12.3	55 47.9	56 17.8	56 34.8	56 47.8	57 6.4	57 22.7
		S.	0	......	......	......	1 42.1	1 17.0	0 47.3	0 17.4	59 48.7	59 35.5	59 21.0	59 6.4	58 51.0
3	E.	S.	0	......	......	......	......	12 27.3	13 19.3	14 7.3	14 58.9	15 23.5	15 51.3	16 19.8	16 44.5
		N.	0	......	......	......	......	27 56.8	25 41.9	23 50.9	22 22.2	21 44.7	21 3.4	20 27.6	19 52.3
	W.	N.	0	......	......	......	......	40 44.0	43 6.0	44 49.8	46 19.9	47 2.8	47 40.9	48 16.8	48 52.0
		S.	0	......	......	......	......	56 13.5	55 28.0	54 36.9	53 45.1	53 18.5	52 52.9	52 27.7	51 58.2
3	E.	S.	23	......	......	45 55.8	46 12.7	46 28.6	46 44.3	47 1.8	47 17.7	47 24.4	47 32.8	47 40.9	......
		N.	23	......	......	50 34.7	50 16.9	50 0.3	49 43.4	49 25.3	49 9.5	49 1.3	48 53.1	48 44.6	......
	W.	N.	1	......	......	49 8.0	49 27.9	49 42.9	50 2.0	50 16.0	50 35.6	50 42.6	50 50.8	50 59.6	......
		S.	1	......	......	53 48.7	53 31.5	53 16.9	52 58.5	52 43.1	52 27.6	52 20.3	52 11.4	52 5.0	......
4	E.	S.	5	......	15 14.7	15 39.1	16 2.7	16 26.3	16 51.8	17 17.1	17 42.5	......	18 6.7	......	......
		N.	5	......	23 28.9	22 58.5	22 27.7	22 2.4	21 33.7	21 3.9	20 39.1	......	20 12.9	......	......
	W.	N.	6	......	32 40.0	33 9.3	33 39.6	34 6.0	34 37.6	35 3.5	35 30.9	......	35 58.0	......	......
		S.	6	......	40 57.0	40 31.6	40 7.0	39 45.4	39 19.8	38 53.0	38 27.7	......	38 4.5	......	......
4	E.	S.	6	......	5 58.4	6 27.4	6 53.4	7 18.5	7 46.4	8 13.5	8 42.0	......	9 8.8	......	......
		N.	6	......	15 21.5	14 45.0	14 12.4	13 40.7	13 7.7	12 35.3	12 2.5	......	11 33.5	......	......
	W.	N.	7	......	14 7.4	14 45.4	15 17.8	15 46.6	16 20.5	16 55.5	17 24.9	......	17 56.6	......	......
		S.	7	......	23 32.5	23 5.6	22 38.5	22 12.4	21 45.4	21 17.5	20 47.9	......	20 21.1	......	......
4	E.	N.	5 46 29.0	46 51.9	47 15.5	47 27.9	47 40.0	......	......	......	......	......	......	......	......
		S.	5 52 44.5	52 20.5	51 54.0	51 41.4	51 28.8	......	......	......	......	......	......	......	......
	W.	S.	8 34 50.8	35 17.0	35 41.4	35 54.4	36 7.7	......	......	......	......	......	......	......	......
		N.	8 41 6.7	40 43.1	40 19.4	40 7.8	39 56.2	......	......	......	......	......	......	......	......
4	E.	S.	7	......	38 43.4	39 5.1	39 29.2	39 48.6	40 13.7	40 36.4	40 59.0	......	41 21.6	......	......
		N.	7	......	46 14.6	45 47.1	45 20.0	44 56.8	44 30.9	44 6.0	43 43.0	......	43 16.3	......	......
	W.	N.	9	......	3 28.1	3 54.7	4 22.2	4 45.2	5 12.5	5 36.9	6 1.8	......	6 26.8	......	......
		S.	9	......	11 1.6	10 38.5	10 14.4	9 54.3	9 29.6	9 7.2	8 43.4	......	8 22.7	......	......

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	″	° ′ ″	″	° ′ ″		
10 Lacertæ	216.8	217.2	−0.563	−0.378	+38 27 7.11	−37.05	+38 26 30.06	T.	Good seeing.
	222.4	213.0							
	222.4	216.9	−0.213						Slightly diffuse; not quite steady.
	218.8	220.9							
14 Andromedæ	218.8	219.2	−0.500	−0.414	38 36 12.75	−35.04	38 35 37.71	T.	Diffuse; not quite steady.
	223.8	215.4							
	225.6	218.8	−0.350						Good seeing.
	222.0	223.2							
40 Aurigæ	223.7	215.4	−0.363	−0.349	38 29 18.17	+11.75	38 29 29.92	B.	Fair seeing.
	220.7	223.2							
	226.7	226.8	−0.356						Fair seeing.
	230.0	224.2							
65 Aurigæ	226.9	224.0	−0.606	−0.536	36 58 25.51	+19.48	36 58 44.99	B.	Fair seeing; transits over threads A to IX.
	228.0	221.2							
	231.7	224.3	−0.513						Fair seeing.
	228.2	227.4							
Groomb. 1450	231.9	223.7	−0.688	−0.500	38 24 34.38	+25.21	38 24 59.59	B.	Fair seeing; light clouds; unobscured.
	229.1	226.3							
	228.0	228.0	−0.344						Fair seeing; faint.
	230.9	225.4							
α Lyræ	195.5	197.2	+0.906	+0.907	38 40 57.38	−25.41	38 40 31.97	B.	Unsteady; thin clouds.
	190.2	203.0							
	192.0	204.9	+0.931						Fair seeing; steadier; light clouds.
	199.2	201.2							
72 Cygni	211.2	211.2	+0.675	+0.687	38 1 13.22	−37.35	38 0 35.87	T.	Very faint.
	206.8	217.6							
	213.8	222.4	+0.738						Bad seeing.
	217.6	220.8							
1 Lacertæ	206.8	217.6	+0.781	+0.721	37 10 37.04	−37.40	37 9 59.64	T.	Poor seeing.
	211.9	213.6							
	219.1	222.5	+0.713						Fair seeing; diffuse; not quite steady.
	217.4	225.4							
10 Lacertæ	216.0	216.5	+0.481	+0.646	38 27 6.90	−37.29	38 26 29.61	T.	Poor seeing.
	213.5	220.7							
	215.2	225.2	+0.844						Fair seeing.
	218.9	222.4							
14 Andromedæ	219.2	219.1	+0.369	+0.527	38 36 12.33	−35.36	38 35 36.97	T.	Fair seeing.
	217.2	223.2							
	218.4	226.0	+0.713						Bad seeing; very diffuse; unsteady.
	220.3	224.1							
32 Andromedæ	221.2	224.0	+0.500	+0.530	38 49 28.33	−30.36	38 48 57.97	T.	Bad seeing; diffuse; unsteady.
	221.2	226.4							
	221.4	226.6	+0.588						Fair seeing; diffuse.
	222.6	226.8							
μ Andromedæ	220.8	222.4	+0.550	+0.589	37 52 20.26	−28.83	37 51 51.43	T.	Bad seeing; diffuse; unsteady.
	218.4	225.6							
	222.6	229.9	+0.669						Good seeing; slightly diffuse.
	225.2	228.6							
40 Aurigæ	225.9	218.3	−0.200	−0.067	38 29 18.27	+11.64	38 29 29.91	B.	Not good seeing; poor image; air very damp.
	220.0	224.4							
	223.7	227.1	+0.063						Poor seeing.
	227.4	225.0							
60 Aurigæ	227.1	221.1	−0.188	−0.116	38 34 39.25	+17.15	38 34 56.40	B.	Bad seeing.
	223.5	226.5							
	226.7	227.1	−0.050						Poor seeing.
	227.5	226.3							
65 Aurigæ	221.5	225.2	+0.031	+0.036	36 58 25.10	+19.64	36 58 44.74	B.	Tolerable seeing; transits over threads A to III.
	225.7	222.5							
	230.0	227.8	+0.044						Tolerable seeing.
	228.0	230.9							
Groomb. 1450	229.2	224.2	−0.319	−0.094	+38 24 34.38	+25.60	+38 24 59.98	B.	Tolerable seeing.
	227.5	227.4							
	228.6	231.4	+0.125						Poor seeing; very unsteady; light clouds.
	231.0	230.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Nov. 5	E.	S.	17 56 11.5	57 9.0	58 8.8	58 40.2	....	59 43.3	0 15.0	0 44.8	1 17.0	1 51.4	2 24.9	....	2 57.8
		N.	18 16 4.9	14 6.7	12 21.1	11 27.2	....	9 52.2	9 7.2	8 26.8	7 43.0	7 1.9	6 23.2	....	5 45.9
	W.	N.	18 48 52.0	50 48.7	52 35.6	53 28.8	....	55 3.4	55 49.0	56 30.5	57 12.8	57 53.7	58 33.8	....	59 9.4
		S.	19 8 45.1	7 48.2	6 48.5	6 16.5	....	5 15.1	4 43.3	4 13.0	3 40.4	3 6.3	2 32.7	....	1 59.9
5	E.	S.	19 23 49.0	24 7.6	24 24.4	24 43.0	25 0.4	25 17.1	25 35.9	25 53.9	26 11.8	....	....	....	....
		N.	19 30 49.5	30 28.3	30 8.5	29 48.1	29 28.8	29 11.0	28 51.4	28 32.3	28 13.9	....	....	....	....
	W.	N.	21 14 40.0	15 2.4	15 21.6	15 40.8	16 0.6	16 18.4	16 37.8	16 56.9	17 15.7	....	....	....	....
		S.	21 21 41.3	21 23.3	21 5.8	20 46.9	20 29.3	20 12.9	19 54.0	19 35.8	19 18.2	....	....	....	....
5	E.	N.	19	....	56 55.0	57 8.4	57 23.1	57 37.0	57 50.9	58 4.6	58 19.3	58 26.5	58 32.5	....	....
		S.	20	....	1 32.0	1 18.0	1 2.5	0 48.1	0 33.5	0 18.6	0 3.9	59 56.8	59 50.0	....	....
	W.	S.	22	....	17 46.1	18 0.1	18 14.1	18 29.7	18 44.3	18 57.9	19 12.9	19 20.5	19 27.6	....	....
		N.	22	....	22 21.0	22 8.0	21 54.0	21 39.9	21 26.3	21 12.6	20 58.3	20 51.3	20 43.9	....	....
5	E.	S.	20	....	....	....	30 20.8	30 36.9	30 54.9	31 11.9	31 29.5	31 37.6	31 46.6	....	....
		N.	20	....	....	....	34 41.2	34 23.5	34 4.4	33 46.2	33 28.6	33 19.8	33 10.3	....	....
	W.	N.	22	....	....	....	24 21.5	24 38.3	24 56.9	25 15.8	25 34.6	25 42.6	25 51.6	....	....
		S.	22	....	....	....	28 42.2	28 25.7	28 8.5	27 50.4	27 33.3	27 25.8	27 17.0	....	....
5	E.	N.	20 48 14.7	48 27.2	48 38.5	48 51.2	....	49 17.4	49 29.7	49 41.8	49 54.6	....	....	....	....
		S.	20 53 10.0	52 56.4	52 42.8	52 31.0	....	52 4.6	51 52.7	51 39.8	51 26.0	....	....	....	....
	W.	S.	23 27 37.3	27 50.5	28 4.0	28 16.7	....	28 42.7	28 55.1	29 7.9	29 20.8	....	....	....	....
		N.	23 32 32.6	32 19.7	32 7.8	31 56.2	....	31 30.5	31 18.5	31 5.8	30 53.5	....	....	....	....
5	E.	S.	21	48 45.5	49 8.4	49 32.9	49 55.5	50 18.0	50 42.4	51 7.7	51 31.3	....	51 54.3	....	....
		N.	21	57 29.4	57 0.8	56 30.7	56 2.9	55 38.2	55 11.4	54 44.6	54 18.8	....	53 53.4	....	....
	W.	N.	23	9 35.6	10 3.6	10 30.4	11 0.5	11 25.2	11 53.2	12 19.7	12 46.4	....	13 11.7	....	....
		S.	23	18 18.6	17 56.8	17 33.6	17 8.5	16 46.5	16 21.3	15 58.0	15 33.5	....	15 10.3	....	....
5	E.	S.	22	....	....	....	....	48 58.0	49 26.5	49 55.4	50 23.8	50 37.5	50 51.9	51 5.4	51 20.1
		N.	22	....	....	....	....	55 35.9	54 59.4	54 26.0	53 53.9	53 36.5	53 20.2	53 5.4	52 50.1
	W.	N.	23	....	....	....	....	54 32.3	55 7.7	55 41.5	56 14.3	56 30.4	56 45.0	57 1.6	57 17.6
		S.	0	....	....	....	....	1 11.6	0 43.1	0 14.7	59 44.5	59 32.8	59 15.5	59 0.0	58 47.4
5	E.	S.	0	....	....	....	....	12 26.4	13 17.2	14 5.8	14 56.9	15 22.0	15 48.5	16 15.3	16 44.3
		N.	0	....	....	....	....	27 46.9	25 25.9	23 41.9	22 13.4	21 37.9	20 55.0	20 16.7	19 44.8
	W.	N.	0	....	....	....	....	40 46.0	42 54.8	44 46.7	46 18.2	46 58.4	47 35.3	48 14.3	48 49.0
		S.	0	....	....	....	....	56 8.8	55 19.1	54 29.5	53 39.0	53 12.4	52 46.0	52 20.5	51 49.7
5	E.	S.	23	....	45 37.5	45 54.5	46 10.1	46 25.6	46 42.5	46 58.8	47 15.4	47 23.0	47 31.0	....	....
		N.	23	....	50 48.5	50 30.9	50 12.5	49 56.4	49 38.6	49 22.1	49 5.8	48 57.7	48 49.0	....	....
	W.	N.	1	....	48 49.0	49 6.6	49 23.8	49 40.6	49 57.7	50 14.9	50 32.1	50 39.5	50 47.8	....	....
		S.	1	....	54 0.8	53 44.1	53 27.6	53 12.3	52 55.1	52 39.4	52 22.9	52 14.8	52 7.2	....	....
5	E.	S.	5	....	15 13.0	15 38.8	16 3.5	16 26.0	16 50.9	17 17.0	17 41.4	....	18 5.0	....	18 31.2
		N.	5	....	23 29.9	22 59.1	22 29.9	22 3.4	21 34.3	21 7.1	20 39.9	....	20 12.0	....	19 46.7
	W.	N.	6	....	32 40.5	33 11.5	33 40.5	34 6.4	34 36.6	35 4.7	35 31.0	....	35 56.1	....	36 23.8
		S.	6	....	40 56.3	40 31.0	40 7.4	39 44.8	39 20.7	38 54.9	38 29.4	....	38 3.8	....	37 40.5
5	E.	S.	6	....	5 59.4	6 24.9	6 53.8	7 17.5	7 45.9	8 13.9	8 43.4	....	9 10.4	....	9 38.6
		N.	6	....	15 24.3	14 47.1	14 13.3	13 41.2	13 6.2	12 36.0	12 3.7	....	11 34.7	....	11 0.5
	W.	N.	7	....	14 6.4	14 44.2	15 18.3	15 50.1	16 22.3	16 55.5	17 25.8	....	17 55.1	....	18 26.3
		S.	7	....	23 32.0	23 5.0	22 38.0	22 10.7	21 44.4	21 15.6	20 47.7	....	20 19.4	....	19 51.4
5	E.	S.	7	38 19.1	38 39.9	39 4.1	39 27.5	39 48.1	40 12.2	40 35.6	40 58.8	....	....	....	....
		N.	7	46 39.7	46 15.6	45 45.4	45 20.0	44 56.8	44 29.2	44 5.4	43 40.0	....	....	....	....
	W.	N.	9	3 0.8	3 26.6	3 53.5	4 19.3	4 44.3	5 10.8	5 36.9	6 1.8	....	....	....	....
		S.	9	11 23.5	11 2.8	10 38.2	10 15.4	9 54.3	9 30.3	9 7.3	8 44.3	....	....	....	....
6	E.	S.	6	....	5 56.6	6 24.7	6 51.9	7 16.9	7 45.3	8 11.7	8 40.5	....	9 8.0	....	....
		N.	6	....	15 22.5	14 46.0	14 12.1	13 42.4	13 8.0	12 37.0	12 5.8	....	11 35.0	....	....
	W.	N.	7	....	14 4.0	14 41.4	15 13.4	15 44.5	16 18.7	16 52.5	17 21.8	....	17 51.0	....	....
		S.	7	....	23 30.4	23 2.4	22 35.2	22 10.5	21 42.5	21 12.8	20 46.4	....	20 17.1	....	....
6	E.	N.	5 46 49.0	47 13.4	47 25.4	47 37.5	47 49.0	48 1.1	48 13.3	48 25.1	48 36.5	....	....	....	....
		S.	5 52 16.3	51 52.0	51 39.0	51 26.8	51 13.5	51 1.4	50 50.4	50 38.0	50 25.8	....	....	....	....
	W.	S.	8 35 13.8	35 38.4	35 51.0	36 3.9	36 15.8	36 27.7	36 40.4	36 52.4	37 4.1	....	....	....	....
		N	8 40 39.2	40 16.8	40 3.5	39 52.0	39 40.7	39 28.8	39 17.4	39 5.9	38 54.2	....	....	....	....
7	E.	N.	17 57 1.7	57 59.2	58 29.2	58 59.7	59 31.4	0 1.3	0 32.8	1 4.0	1 37.8	2 10.9	2 44.5	....	3 19.4
		S.	18 14 14.4	12 29.6	11 39.5	10 51.5	10 3.3	9 20.3	8 37.5	7 55.2	7 15.6	6 35.1	5 57.9	....	5 17.8
	W.	S.	18 50 36.3	52 23.3	53 14.0	53 59.7	54 48.3	55 31.6	56 14.5	56 56.5	57 37.5	58 18.2	58 54.9	....	59 35.7
		N.	19 7 51.7	6 53.3	6 23.0	5 52.4	5 22.9	4 51.3	4 18.5	3 48.7	3 14.5	2 41.0	2 10.2	......	1 32.8
7	E.	N.	19	....	56 52.7	57 7.7	57 21.0	57 35.4	57 48.5	58 2.7	58 17.7	58 24.5	58 31.7	....	....
		S.	20	....	1 29.5	1 15.2	1 0.2	0 45.6	0 30.4	0 16.8	0 0.9	59 53.8	59 47.1	....	....
	W.	S.	22	....	17 42.7	17 57.4	18 12.1	18 27.6	18 41.5	18 56.5	19 10.1	19 17.5	19 24.4	....	....
		N.	22	....	22 19.4	22 4.4	21 51.4	21 36.9	21 23.3	21 8.5	20 55.4	20 48.0	20 40.7	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
α Lyræ........	176.8	169.3	−0.344	−0.116	+38 40 56.86	−25.08	+38 40 31.78	T.	Good seeing; light clouds; transits over threads A to XI.
	169.0	171.0							
	166.9	173.2	+0.113						Good seeing; light clouds.
	174.1	169.6							
40 Cygni.......	174.0	166.8	−0.050	−0.013	38 3 58.25	−34.75	38 3 23.50	B.	Exceedingly faint; very steady; sky hazy.
	168.4	174.8							
	179.6	186.8	+0.025						Good seeing; clear.
	187.6	180.8							
τ Cygni.......	173.5	179.0	−0.200	−0.013	37 33 24.46	−36.80	37 32 47.66	B.	Distinct and steady; light clouds; haze.
	182.4	173.7							
	191.3	185.1	+0.175						Good seeing.
	184.1	193.1							
72 Cygni.......	184.0	177.2	−0.144	+0.064	38 1 13.54	−37.43	38 0 36.11	B.	Easily visible; poor image; light clouds.
	179.4	183.9							
	184.5	193.7	+0.275						Good seeing.
	191.6	186.8							
1 Lacertæ.....	179.5	184.2	−0.081	−0.061	37 10 36.06	−37.56	37 9 58.50	B.	Good image; steady.
	185.6	179.6							
	197.7	191.0	−0.044						Good seeing.
	192.2	198.2							
10 Lacertæ.....	189.5	181.2	−0.250	−0.087	38 27 6.92	−37.50	38 26 29.42	B.	Good seeing.
	184.5	188.8							
	189.7	195.9	+0.075						Good seeing.
	196.3	191.3							
14 Andromedæ.	193.4	186.4	−0.194	−0.121	38 36 12.40	−35.66	38 35 36.74	B.	Fair seeing.
	190.0	193.9							
	194.6	198.2	−0.050						Fair seeing.
	199.2	194.8							
32 Andromedæ.	200.0	195.4	−0.125	−0.118	38 49 28.96	−30.72	38 48 58.24	B.	Fair seeing.
	196.8	199.4							
	197.7	199.3	−0.113						Fair seeing.
	200.7	197.3							
μ Andromedæ.	199.0	192.6	−0.125	−0.015	37 52 21.52	−29.21	37 51 52.31	B.	Good seeing; image good.
	194.1	198.5							
	198.2	203.5	+0.094						Good seeing.
	203.0	199.2							
40 Aurigæ......	209.2	198.8	−0.338	−0.255	38 29 17.98	+11.56	38 29 29.54	T.	Faint but steady; light clouds.
	201.4	206.4							
	201.7	206.8	−0.181						Fair seeing; diffuse; steady with light clouds.
	208.6	200.6							
60 Aurigæ......	208.4	200.5	−0.181	−0.212	38 34 39.49	+17.13	38 34 56.62	T.	Diffuse at times; light clouds.
	201.7	206.7							
	202.8	206.8	−0.250						Diffuse; light clouds.
	209.6	201.6							
Groomb. 1450	210.1	201.2	−0.256	−0.273	38 24 33.67	+25.70	38 24 59.37	T.	Very faint; diffuse; light clouds.
	202.6	207.4							
	205.0	208.6	−0.300						Faint; clouds.
	211.2	202.8							
60 Aurigæ......	207.7	199.4	−0.544	−0.556	38 34 40.39	+17.10	38 34 57.49	B.	Good seeing; passing clouds.
	204.0	203.6							
	207.8	205.2	−0.588						Good seeing; passing clouds.
	210.0	203.2							
65 Aurigæ......	203.9	202.5	−0.588	−0.727	36 58 25.41	+19.65	36 58 45.06	B.	Good seeing; transits over threads B to VIII
	207.4	199.4							
	213.8	202.2	−0.913						Good seeing.
	210.2	207.2							
α Lyræ........	180.0	190.6	+0.200	+0.068	38 40 57.14	−24.68	38 40 32.46	T.	Fair seeing; diffuse; not quite steady; transits over threads B to IX, XI, XIII.
	190.4	183.0							
	190.3	184.0	−0.063						Good seeing; very faint; clouds.
	185.2	190.5							
τ Cygni.......	188.4	194.2	−0.219	−0.296	+37 33 24.99	−36.76	+37 32 48.23	B.	Steady and distinct; light clouds.
	198.8	189.5							
	212.0	203.0	−0.388						Poor seeing; clouds.
	206.7	209.5							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Nov. 7	E.	S.	20	....	....	....	30 17.6	30 32.8	30 50.4	31 7.8	31 25.9	31 34.4	....	31 51.9	....
		N.	20	....	....	....	34 40.4	34 22.5	34 2.6	33 44.0	33 26.4	33 17.5	....	32 59.7	....
	W.	N.	22	....	....	....	24 18.6	24 35.7	24 55.0	25 13.3	25 32.2	25 39.3	....	25 57.2	....
		S.	22	....	....	....	28 41.0	28 24.3	28 6.6	27 48.1	27 32.0	27 24.0	....	27 7.1	....
7	E.	S.	21	48 41.3	49 4.1	49 26.0	49 51.2	50 14.5	50 39.3	51 4.5	51 28.3	....	51 51.7	....	....
		N.	21	57 28.1	56 59.0	56 30.6	56 2.1	55 36.9	55 9.8	54 43.4	54 16.8	....	53 51.7	....	....
	W.	N.	23	9 31.2	9 58.8	10 29.0	10 56.4	11 20.5	11 48.7	12 15.4	12 41.6	....	13 6.7	....	....
		S.	23	18 18.4	17 55.4	17 29.6	17 6.9	16 44.0	16 20.4	15 54.0	15 31.2	....	15 9.4	....	....
12	E.	S.	17 58 58.9	59 27.5	59 58.4	0 31.2	1 2.7	1 33.0	2 6.9	2 39.8	3 11.5	3 28.3	3 45.6	4 2.6	4 18.8
		N.	18 13 13.3	12 23.5	11 35.1	10 47.5	10 1.5	9 19.0	8 38.7	7 57.4	7 18.9	6 59.7	6 41.9	6 21.9	6 3.9
	W.	N.	18 53 27.8	54 17.4	55 7.9	55 55.8	56 41.0	57 21.5	58 4.6	58 44.6	59 24.3	59 41.3	0 0 7	0 20.5	0 38.0
		S.	19 7 45.0	7 14.4	6 42.6	6 11.4	5 38.2	5 9.0	4 36.5	4 3.4	3 28.7	3 14.4	2 57.4	2 38.0	2 20.8
12	E.	S.	20 30 2.5	30 20.0	30 36.8	30 55.3	31 12.4	31 28.5	31 45.8	32 3.7	32 21.1	....	....	....	....
		N.	20 36 53.5	36 33.5	36 14.2	35 54.0	35 35.7	35 17.9	34 59.4	34 40.9	34 23.1	....	....	....	....
	W.	N.	22 23 55.0	24 14.5	24 34.3	24 54.0	25 12.4	25 29.3	25 48.7	26 7.5	26 25.2	....	....	....	....
		S.	22 30 46.9	30 29.3	30 12.0	29 54.9	29 35.9	29 20.1	29 1.4	28 44.0	28 26.0	....	....	....	....
12	E.	N.	20 48 44.3	49 8.4	49 21.4	49 34.3	49 46.9	49 58.9	50 10.8	50 23.2	50 35.4	....	....	....	....
		S.	20 54 29.3	54 2.8	53 50.0	53 37.3	53 24.3	53 11.4	52 58.4	52 44.6	52 32.8	....	....	....	....
	W.	S.	23 28 4.1	28 29.6	28 43.6	28 55.8	29 10.0	29 22.7	29 35.7	29 47.7	30 1.5	....	....	....	....
		N.	23 33 50.1	33 25.8	33 12.9	33 0.6	32 47.3	32 35.6	32 23.3	32 10.4	31 58.4	....	....	....	....
12	E.	S.	21	49 37.2	50 0.0	50 25.0	50 47.7	51 10.0	51 33.8	51 56.8	52 21.2	....	52 45.5	....	....
		N.	21	58 24.4	57 55.4	57 27.4	56 59.8	56 33.1	56 5.8	55 39.6	55 14.0	....	54 50.1	....	....
	W.	N.	23	10 25.3	10 53.8	11 22.0	11 49.5	12 17.1	12 44.5	13 11.7	13 38.0	....	14 2.0	....	....
		S.	23	19 12.9	18 50.3	18 26.3	18 2.5	17 39.1	17 15.5	16 50.5	16 26.9	....	16 3.0	....	....
12	E.	S.	22	....	....	....	....	49 49.5	50 18.6	50 47.8	51 16.9	51 30.0	51 45.4	52 0.1	52 13.9
		N.	22	....	....	....	....	56 30.8	55 54.4	55 22.0	54 50.4	54 34.5	54 17.9	54 1.3	53 45.9
	W.	N.	23	....	....	....	....	55 24.3	55 58.3	56 33.6	57 6.3	57 21.3	57 36.9	57 52.6	58 8.3
		S.	0	....	....	....	....	2 1.3	1 32.6	1 3.8	0 35.6	0 21.6	0 6.0	59 51.8	59 38.1
12	E.	S.	23	....	46 31.7	46 47.8	47 4.3	47 19.0	47 35.7	47 52.4	48 8.2	....	....	....	....
		N.	23	....	51 42.9	51 25.4	51 7.3	50 51.4	50 33.8	50 16.3	49 59.9	....	....	....	....
	W.	N.	1	....	49 42.5	49 58.8	50 17.0	50 33.4	50 50.1	51 8.0	51 25.0	....	....	....	....
		S.	1	....	54 52.4	54 35.5	54 18.7	54 5.1	53 48.6	53 31.0	53 15.5	....	....	....	....
12	E.	N.	6	6 24.3	6 51.0	7 15.9	7 42.2	8 10.3	8 36.5	9 4.4	9 32.7	....	10 0.9	....	10 30.3
		S.	6	16 54.9	16 17.7	15 44.9	15 10.9	14 38.0	14 7.0	13 33.1	13 1.6	....	12 34.0	....	12 1.0
	W.	S.	7	14 22.9	14 57.6	15 32.0	16 5.1	16 39.0	17 10.7	17 42.0	18 14.1	....	18 44.4	....	19 15.2
		N.	7	24 53.7	24 27.9	24 2.5	23 36.0	23 8.9	22 42.0	22 13.6	21 47.0	....	21 19.9	....	20 50.0
12	E.	S.	5	48 20.8	48 32.4	48 44.6	48 57.0	49 7.4	49 20.4	49 32.1	49 43.9	49 49.7	....	....	....
		N.	5	52 33.6	52 20.5	52 8.8	51 55.8	51 44.6	51 31.8	51 19.6	51 6.9	51 1.2	....	....	....
	W.	N.	8	36 47.0	36 58.5	37 12.7	37 25.0	37 35.9	37 47.5	38 1.1	38 12.7	38 20.2	....	....	....
		S.	8	40 59.7	40 47.6	40 35.1	40 23.3	40 12.4	39 59.8	39 47.9	39 36.2	39 29.7	....	....	....
12	E.	N.	7	39 10.4	39 32.7	39 53.4	40 16.9	40 39.9	41 0.8	41 25.0	41 47.4	41 58.9	....	42 24.0	....
		S.	7	47 36.2	47 9.0	46 43.9	46 16.7	45 51.9	45 27.9	45 2.0	44 37.3	44 26.5	....	44 0.7	....
	W.	S.	9	3 53.8	4 20.1	4 45.4	5 9.8	5 36.8	6 1.0	6 26.4	6 50.7	7 2.3	....	7 28.1	....
		N.	9	12 17.5	11 57.7	11 34.7	11 12.1	10 51.6	10 28.6	10 4.8	9 42.9	9 31.0	....	9 8.0	....
12	E.	S.	7 51 32.3	....	52 23.6	52 36.0	52 49.0	53 2.0	53 15.9	53 28.0	....	....	....	....	....
		N.	7 58 20.9	....	57 26.6	57 11.9	56 58.0	56 44.0	56 31.9	56 18.3	....	....	....	....	....
	W.	N.	10 25 36.9	....	26 31.8	26 45.0	26 59.3	27 13.4	27 27.8	27 40.2	....	....	....	....	....
		S.	10 32 26.7	....	31 35.9	31 22.7	31 8.9	30 55.5	30 42.9	30 30.0	....	....	....	....	....
13	E.	N.	5 47 20.0	47 43.3	48 6.7	48 18.4	48 30.2	48 41.4	48 53.2	49 5.8	49 16.9	49 28.5	49 41.3	....	....
		S.	5 53 33.5	53 9.0	52 44.6	52 32.4	52 19.9	52 7.3	51 55.4	51 43.4	51 30.9	51 19.1	51 7.0	....	....
	W.	S.	8 35 42.5	36 7.7	36 32.2	36 44.4	36 57.5	37 9.5	37 21.9	37 34.3	37 45.9	37 57.5	38 10.1	....	....
		N.	8 41 58.0	41 34.8	41 11.6	40 59.3	40 47.4	40 36.6	40 24.7	40 12.3	40 0.5	39 49.0	39 37.0	....	....
14	E.	S.	17 58 50.6	59 21.3	59 52.0	0 21.5	0 54.4	1 24.8	1 55.3	2 29.0	3 3.8	....	3 36.0	....	4 11.8
		N.	18 13 18.4	12 26.9	11 37.3	10 52.5	10 9.7	9 24.8	8 46.0	8 4.0	7 24.2	....	6 46.6	....	6 6.6
	W.	N.	18 53 18.9	54 11.7	54 59.3	55 45.6	56 28.8	57 11.5	57 52.0	58 33.8	59 14.0	....	59 52.4	....	0 31.9
		S.	19 7 47.2	7 16.5	6 46.6	6 16.2	5 44.9	5 13.6	4 41.8	4 9.2	3 35.6	....	3 2.9	....	2 26.2
14	E.	N.	19 57 19.0	57 33.0	57 46.7	58 0.2	58 14.6	....	....	....	....	....	....	....	....
		S.	20 2 52.7	2 36.7	2 22.1	2 7.0	1 52.8	....	....	....	....	....	....	....	....
	W.	S.	22 18 5.4	18 21.5	18 37.0	18 52.4	19 6.0	....	....	....	....	....	....	....	....
		N.	22 23 39.7	23 26.1	23 11.6	22 58.0	22 44.5	....	....	....	....	....	....	....	....
14	E.	N.	20 48 17.4	48 41.9	49 7.0	49 19.2	49 31.7	49 44.0	49 56.7	50 9.1	50 21.0	50 33.6	....	....	....
		S.	20 54 54.8	54 28.2	54 1.2	53 48.0	53 35.0	53 21.9	53 10.3	52 57.8	52 44.8	52 30.4	....	....	....
	W.	S.	23 27 35.8	28 2.1	28 28.7	28 42.0	28 55.4	29 8.5	29 22.0	29 35.0	29 47.5	30 0.2	....	....	....
		N.	23 34 13.0	33 47.9	33 23.2	33 10.1	32 58.3	32 45.4	32 33.7	32 21.1	32 9.0	31 56.2	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0.	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
72 Cygni	200.9	192.9	−0.288	−0.197	+38 1 12.71	−37.43	+38 0 35.28	B.	Only tolerable seeing; clouds.
	196.3	199.7							
	205.6	210.4	−0.113						Poor seeing; very faint; clouds.
	211.9	205.3							
10 Lacertæ	209.5	200.1	−0.563	−0.359	38 27 6.87	−37.63	38 26 29.24	B.	Fair seeing.
	206.4	206.8							
	209.2	213.2	−0.169						Bad seeing; faint; clouds.
	215.5	208.8							
α Lyræ	201.3	193.2	−0.375	−0.483	38 40 55.13	−23.73	38 40 31.40	T.	Bad seeing; diffuse; unsteady.
	210.9	213.0							
	224.9	222.4	−0.613						Bad seeing; diffuse; unsteady.
	232.9	225.6							
72 Cygni	247.4	239.6	−100.6	−0.881	38 1 13.17	−37.30	38 0 35.87	B.	Image poor; unsteady; strong wind; light clouds.
	248.7	240.4							
	253.9	242.9	−0.838						Fair seeing; good image; quite steady; fresh wind.
	250.4	248.0							
1 Lacertæ	250.1	240.6	−0.944	−0.921	37 10 36.72	−37.68	37 9 59.04	B.	Bad image; tolerably steady; thin clouds; strong wind; transits over threads B to VIII.
	249.4	243.8							
	252.8	250.8	−1.000						Fair seeing; tolerable image.
	259.2	245.2							
10 Lacertæ	251.1	244.0	−1.244	−1.030	38 27 6.69	−37.79	38 26 28.90	B.	Tolerable image; quite steady; fresh wind.
	253.4	240.6							
	257.7	244.7	−0.906						Fair seeing.
	252.4	250.9							
14 Andromedæ .	252.0	247.7	−1.075	−0.964	38 36 13.56	−36.24	38 35 37.32	B.	Fair seeing.
	256.9	244.0							
	259.6	245.2	−0.938						Tolerable seeing only.
	252.6	252.0							
μ Andromedæ .	254.0	250.0	−1.150	−0.911	37 52 22.15	−30.09	37 51 52.06	B.	Fair seeing.
	259.6	245.2							
	256.7	244.4	−0.763						Fair seeing; tolerable image; rather diffuse.
	248.9	249.0							
60 Aurigæ......	253.8	258.2	0.225	−0.188	38 34 39.81	+17.02	38 34 56.83	T.	Fair seeing; slightly diffuse; moonlight.
	260.8	252.8							
	261.6	254.9	−0.169						Poor seeing; image ill defined.
	256.8	260.8							
65 Aurigæ......	258.3	253.2	−0.069	−0.003	36 58 25.26	+19.76	36 58 45.02	T.	Fair seeing; slightly diffuse; moonlight.
	253.6	257.6							
	257.2	261.6	+0.063						Poor seeing; diffuse.
	261.2	257.8							
Groomb. 1450	256.1	260.2	−0.119	+0.027	38 24 33.48	+26.27	38 24 59.75	T.	Bad image; unsteady.
	260.4	254.4							
	261.2	258.8	+0.175						Fair seeing; somewhat diffuse.
	257.6	262.8							
38 Lyncis	259.2	255.2	−0.013	+0.159	37 17 19.76	+28.35	37 17 48.11	T.	Bad seeing; unsteady; transits over threads A to VI.
	255.3	259.1							
	257.5	263.4	+0.350						Bad seeing; very faint; diffuse and unsteady.
	261.1	260.8							
65 Aurigæ......	228.8	244.0	+1.131	+1.003	36 58 25.02	+19.83	36 58 44.85	B.	Fair seeing; steady; transits over threads A to IX.
	234.8	237.7							
	232.4	236.0	+0.975						Fair seeing.
	228.4	240.4							
α Lyræ	222.8	237.8	+0.731	+0.611	38 40 55.61	−23.41	38 40 32.20	T.	Poor seeing; diffuse and unsteady.
	233.2	229.9							
	234.8	231.4	+0.531						Poor seeing.
	229.2	241.1							
τ Cygni	233.9	241.2	+0.056	−0.006	37 33 24.92	−36.52	37 32 48.40	B.	Not good seeing; faint; rather unsteady.
	242.4	236.0							
	253.2	248.9	−0.069						Bad seeing; poor image; blurred.
	250.4	353.6							
1 Lacertæ	243.4	247.9	−0.106	−0.027	+37 10 37.32	−37.75	+37 9 59.57	B.	Image rather diffuse; steady; transits over threads A to VIII.
	249.9	243.7							
	256.4	255.2	+0.050						Poor seeing.
	255.4	257.4							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Nov. 14	E.	S.	21 49 11.8	49 34.4	49 58.0	50 22.0	50 45.6	51 7.6	51 32.0	51 55.9	52 20.5	....	52 44.8	....	....
		N.	21 58 49.6	58 20.6	57 53.4	57 25.5	56 56.6	56 30.0	56 4.0	55 36.2	55 11.8	....	54 45.8	....	....
	W.	N.	23 9 53.1	10 24.2	10 50.7	11 20.1	11 49.0	12 14.3	12 41.6	13 8.6	13 35.0	....	14 0.4	....	....
		S.	23 19 35.4	19 11.0	18 47.3	18 22.8	18 1.0	17 38.5	17 15.0	16 50.5	16 26.5	....	16 2.8	....	....
14	E.	N.	22	....	....	....	....	49 43.8	50 13.6	50 42.9	51 11.5	51 26.0	51 39.4	51 55.5	52 11.5
		S.	22	....	....	....	....	56 31.2	55 58.2	55 24.0	54 51.7	54 36.2	54 20.5	54 2.5	53 44.4
	W.	S.	23	....	....	....	....	55 20.3	55 54.4	56 26.0	56 59.7	57 16.6	57 34.4	57 51.0	58 6.0
		N.	0	....	....	....	....	2 5.5	1 38.0	1 8.3	0 42.2	0 27.1	0 12.6	59 57.7	59 42.7
14	E.	N.	0	....	....	....	....	....	13 58.8	14 47.7	....	16 5.6	16 29.8	17 0.3	17 27.8
		S.	0	....	....	....	....	....	26 43.0	24 56.1	....	22 39.9	22 7.0	21 21.7	20 48.0
	W.	S.	0	....	....	....	....	....	43 26.4	45 22.2	....	47 36.0	48 16.7	48 55.0	49 28.8
		N.	0	....	....	....	....	....	56 19.9	55 27.0	....	54 11.8	53 45.6	53 18.0	52 49.0
14	E.	N.	23	....	46 28.3	46 44.0	46 58.9	47 16.1	47 30.7	47 47.1	48 4.6	48 11.9	48 19.3	....	....
		S.	23	....	51 41.4	51 24.5	51 7.5	50 51.3	50 35.4	50 18.0	50 2.0	49 53.0	49 43.7	....	....
	W.	S.	1	....	49 37.7	49 56.9	50 13.6	50 30.8	50 46.8	51 4.6	51 20.5	51 28.6	51 37.0	....	....
		N.	1	....	54 53.6	54 38.5	54 21.8	54 4.9	53 50.0	53 33.8	53 18.5	53 10.4	53 3.0	....	....
14	E.	S.	6	6 27.5	6 48.0	7 14.7	7 41.3	8 7.3	8 38.2	9 5.8	9 34.8	....	10 3.0	....	10 31.0
		N.	6	16 51.1	16 14.7	15 41.0	15 4.0	14 33.0	14 3.7	13 29.3	12 54.0	....	12 27.8	....	11 58.7
	W.	N.	7	14 25.1	14 57.7	15 33.7	16 6.3	16 37.8	17 11.2	17 44.7	18 15.4	....	18 44.9	....	19 15.7
		S.	7	24 48.0	24 20.9	23 55.8	23 28.6	23 4.5	22 34.9	22 7.9	21 38.7	....	21 11.6	....	20 46.1
14	E.	S.	7	39 10.0	39 29.4	39 51.9	40 16.2	....	41 1.4	41 23.9	41 45.5	....	42 9.5	....	....
		N.	7	47 32.9	47 6.3	46 41.6	46 11.7	....	45 23.4	44 55.7	44 33.1	....	44 6.9	....	....
	W.	N.	9	3 54.1	4 18.3	4 47.0	5 12.6	....	6 2.6	6 29.2	6 50.7	....	7 14.0	....	....
		S.	9	12 13.5	11 53.2	11 30.0	11 7.3	....	10 21.8	9 59.1	9 37.0	....	9 12.2	....	....
14	E.	N.	7 51 56.3	52 20.4	52 34.0	52 46.3	53 0.5	53 11.0	53 24.3	53 36.4	....	54 3.2	....	....	....
		S.	7 57 51.5	57 22.6	57 10.0	56 57.2	56 42.9	56 29.5	56 16.2	56 4.0	....	55 36.0	....	....	....
	W.	S.	10 26 3.0	26 29.3	26 43.5	26 57.0	27 11.7	27 23.5	27 36.0	27 50.5	....	28 17.6	....	....	....
		N.	10 31 59.0	31 33.7	31 20.7	31 7.8	30 55.0	30 41.5	30 29.0	30 16.7	....	29 50.5	....	....	....
15	E.	N.	17 58 48.0	59 19.0	59 49.1	0 19.1	0 50.7	1 21.6	1 52.8	2 25.6	....	....	3 32.4	....	4 8.0
		S.	18 13 16.7	12 28.2	11 37.6	10 51.4	10 6.0	9 25.6	8 43.7	8 2.5	....	....	6 44.4	....	6 5.8
	W.	S.	18 53 18.8	54 8.0	54 56.4	55 42.8	56 28.1	57 9.4	57 51.0	58 31.1	....	....	59 49.8	....	0 29.9
		N.	19 7 48.4	7 17.5	6 47.3	6 15.8	5 44.7	5 15.0	4 43.2	4 9.8	....	....	3 2.9	....	2 27.7
15	E.	N.	19	57 31.3	57 45.4	57 59.1	58 14.0	58 27.4	....	....	....	....	....	....	....
		S.	20	2 35.4	2 20.4	2 5.7	1 50.7	1 37.0	....	....	....	....	....	....	....
	W.	S.	22	18 21.5	18 37.7	18 52.3	19 7.4	19 21.6	....	....	....	....	....	....	....
		N.	22	23 26.3	23 12.5	22 58.6	22 44.9	22 30.4	....	....	....	....	....	....	....
15	E.	S.	20 48 41.4	49 6.4	49 19.4	49 31.9	49 44.6	49 57.9	50 9.3	50 22.4	50 35.0	50 47.5	....	....	....
		N.	20 54 26.5	53 59.7	53 44.7	53 32.4	53 19.0	53 5.5	52 53.7	52 40.0	52 27.6	52 14.7	....	....	....
	W.	N.	23 28 4.6	28 28.6	28 43.3	28 56.7	29 9.7	29 24.5	29 35.5	29 48.4	30 0.9	30 13.9	....	....	....
		S.	23 33 48.6	33 23.2	33 10.4	32 57.5	32 44.6	32 31.9	32 19.8	32 6.5	31 53.6	31 40 3	....	....	....
15	E.	N.	21 49 8.5	49 33.6	49 56.2	50 19.4	50 42.7	51 3.4	....	....	52 16.4	....	52 39.3	....	53 4.9
		S.	21 58 53.0	58 22.9	57 56.0	57 27.8	57 0.3	56 34.0	....	....	55 14.6	....	54 50.1	....	54 23.3
	W.	S.	23 9 53.2	10 21.0	10 49.7	11 18.9	11 46.0	12 11.0	....	....	13 31.3	....	13 56.3	....	14 22.0
		N.	23 19 37.3	19 13.9	18 51.9	18 28.0	18 3.9	17 40.7	....	....	16 30.0	....	16 6.4	....	15 40.5
15	E.	S.	23	....	....	46 43.8	47 0.7	47 14.8	47 30.9	47 48.9	48 3.5	48 12.0	48 20.0	....	....
		N.	23	....	....	51 22.5	51 2.7	50 46.7	50 31.5	50 13.5	49 56.5	49 48.3	49 39.9	....	....
	W.	N.	1	....	....	49 56.4	50 14.5	50 30.8	50 46.4	51 4.6	51 22.3	51 29.4	51 36.6	....	....
		S.	1	....	....	54 34.7	54 18.9	54 3.5	53 47.2	53 30.7	53 13.2	53 5.2	52 59.3	....	....
15	E.	S.	5 47 41.4	48 5.3	48 17.8	48 29.8	48 41.7	48 53.6	49 5.1	....	....	....	....	....	....
		N.	5 53 6.8	52 42.4	52 29.1	52 16.8	52 4.5	51 51.0	51 40.0	....	....	....	....	....	....
	W.	N.	8 36 6.4	36 30.7	36 44.6	36 56.0	37 9.8	37 21.8	37 33.2	....	....	....	....	....	....
		S.	8 41 32.8	41 8.4	40 56.0	40 44.6	40 32.1	40 19.6	40 8.4	....	....	....	....	....	....
16	E.	N.	17 56 54.0	57 51.7	58 49.5	59 19.6	59 51.0	0 20.5	0 51.2	1 23.4	1 55.3	2 28.0	3 0.9	3 33.9	4 5.7
		S.	18 16 57.9	14 59.6	13 12.6	12 23.7	11 35.0	10 52.6	10 7.5	9 23.3	8 40.8	8 1.0	7 21.7	6 42.9	6 8.9
	W.	S.	18 49 33.0	51 31.6	53 17.2	54 10.1	54 57.7	55 42.5	56 25.6	57 10.7	57 49.0	58 32.0	59 11.7	59 50.3	0 24.1.
		N.	19 9 41.3	8 44.0	7 45.3	7 15.5	6 45.1	6 15.4	5 44.6	5 11.8	4 38.7	4 7.5	3 33.0	3 1.9	2 26.8
16	E.	N.	19 57 16.2	57 30.6	57 44.7	57 58.4	58 12.0	58 27.0	58 40.9	58 54.3	....	....	....	....	....
		S.	20 2 50.6	2 35.0	2 19.6	2 5.0	1 51.0	1 35.4	1 22.5	1 7.0	....	....	....	....	....
	W.	S.	22 18 4.4	18 20.4	18 35.0	18 50.3	19 4.6	19 19.1	19 33.9	19 48.3	....	....	....	....	....
		N.	22 23 38.0	23 23.9	23 9.7	22 56.3	22 42.8	22 29.3	22 15.0	22 0.5	....	....	....	....	....
16	E.	N.	0	....	....	....	....	....	....	14 46.9	15 33.6	16 0.3	16 24.5	16 56.5	17 28.0
		S.	0	....	....	....	....	....	....	24 49.9	23 22.3	22 36.7	21 55.7	21 19.3	20 43.5
	W.	S.	0	....	....	....	....	....	....	45 15.7	46 52.8	47 30.7	48 10.4	48 50.3	49 28.6
		N.	0	....	....	....	....	....	....	55 27.3	54 35.7	54 11.8	53 46.0	53 16.9	52 47.2

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	″	° ′ ″	″	° ′ ″		
10 Lacertæ	252.8	245.7	−0.463	−0.117	+38 27 7.22	−37.91	+38 26 29.31	B.	Fair seeing.
	250.7	250.4							
	252.9	256.8	+0.219						Poor seeing
	256.0	255.6							
14 Andromedæ	253.3	253.6	−0.169	+0.036	38 36 13.10	−36.42	38 35 36.68	B.	Indifferent seeing; bright moon
	256.7	253.7							
	257.2	258.7	+0.244						Poor seeing.
	257.0	259.4							
32 Andromedæ	257.2	258.1	+0.119	+0.102	38 49 29.64	−31.86	38 48 57.78	B.	Poor seeing.
	258.8	259.8							
	259.0	260.6	+0.094						Poor seeing.
	260.0	259.9							
μ Andromedæ	256.7	256.7	−0.150	+0.065	37 52 21.66	−30.34	37 51 51.32	B.	Poor seeing.
	259.0	256.6							
	261.0	264.0	+0.288						Bad seeing.
	262.4	264.0							
60 Aurigæ	279.2	272.2	−0.706	−0.351	38 34 40.26	+17.07	38 34 57.33	T.	Image poorly defined; not steady; moonlight.
	276.8	272.5							
	276.8	276.8	−0.038						Poorly defined; not steady; moonlight.
	277.5	276.9							
Groomb. 1450	278.8	274.4	−0.188	+0.197	38 24 33.48	+26.52	38 25 0.00	T.	Poor seeing; diffuse; unsteady; moonlight.
	276.4	277.8							
	276.8	282.8	+0.606						Poor seeing; diffuse; unsteady; moonlight.
	277.6	281.3							
38 Lyncis	276.0	278.4	+0.100	+0.193	37 17 19.10	+28.70	37 17 47.80	T.	Poor seeing; diffuse; unsteady; moon; transits over threads B to IX.
	278.0	277.2							
	277.9	281.9	+0.313						Poor seeing; diffuse; unsteady.
	277.1	278.1							
α Lyræ	240.7	251.6	+1.231	+1.332	38 40 55.51	−23.26	38 40 32.25	B.	Distinct; a little unsteady at times; light, drifting clouds.
	240.8	249.6							
	239.4	248.6	+1.538						Very faint at times; clouds.
	236.9	252.3							
τ Cygni	241.7	257.1	+1.419	+1.353	37 33 23.91	−36.51	37 32 47.40	T.	Light clouds.
	247.3	254.6							
	254.4	264.9	+1.438						Slightly diffuse.
	253.9	266.4							
1 Lacertæ	250.8	261.2	+1.213	+1.172	37 10 36.85	−37.81	37 9 59.04	T.	Steady; tolerably well defined; light clouds; transits over threads B to IX.
	250.2	259.2							
	255.2	267.2	+1.275						Diffuse.
	257.6	266.0							
10 Lacertæ	253.2	264.5	+1.169	+1.318	38 27 8.21	−37.98	38 26 30.23	T.	Steady; slightly diffuse.
	255.0	262.4							
	253.2	266.0	+1.600						Diffuse
	254.8	267.6							
μ Andromedæ	258.5	265.6	+1.069	+1.046	37 52 22.30	−30.48	37 51 51.82	T.	Diffuse; unsteady.
	257.6	267.6							
	261.1	270.5	+1.144						Diffuse; unsteady
	261.3	270.2							
65 Aurigæ	272.1	271.3	+0.181	+0.197	36 58 24.69	+19.95	36 58 44.64	B.	Image little diffuse; steady; wind; moon; transits over threads B to VI.
	272.9	266.6							
	291.2	289.5	+0.244						Fair seeing; fresh wind; pen freezing.
	288.0	293.6							
α Lyræ	257.0	265.6	+0.888	+0.765	38 40 55.65	−23.08	38 40 32.57	T.	Slightly diffuse; unsteady; transits over threads A to IX, XI, XIII.
	259.2	264.8							
	262.6	265.7	+0.719						Slightly diffuse; unsteady.
	262.4	270.8							
τ Cygni	266.4	272.8	+0.531	+0.462	37 33 24.83	−36.51	37 32 48.32	B.	Good seeing.
	269.5	271.6							
	276.0	280.0	+0.456						Good seeing.
	276.6	279.9							
32 Andromedæ	281.1	282.1	+0.388	+0.401	+38 49 29.46	32.15	+38 48 57.31	B.	Fair seeing.
	279.4	284.6							
	280.0	285.6	+0.463						Tolerable seeing; image blurred at times; unsteady.
	282.2	284.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Nov. 16	E.	N.	23	....	46 25.0	46 40.6	46 55.9	47 13.0	47 29.3	47 45.0	48 0.8	48 9.6	48 16.8	....	....
		S.	23	....	51 39.5	51 22.7	51 5.4	50 48.9	50 32.0	50 14.7	49 58.4	49 50.8	49 43.5	....	....
	W.	S.	1	....	49 36.1	49 53.1	50 9.9	50 26.4	50 44.2	51 0.0	51 16.9	51 25.6	51 34.3	....	....
		N.	1	....	54 51.0	54 35.7	54 20.0	54 4.0	53 48.2	53 31.9	53 16.4	53 7.6	53 1.5	....	....
16	E.	S.	6	6 20.8	6 45.9	7 12.8	7 39.9	8 7.8	8 32.4	9 2.3	9 30.3	....	9 57.3	....	....
		N.	6	16 46.2	16 12.6	15 37.2	15 6.3	14 35.4	14 1.3	13 28.8	12 58.3	....	12 26.3	....	....
	W.	N.	7	14 19.5	14 56.3	15 32.8	16 10.3	16 38.4	17 11.9	17 44.0	18 15.0	....	18 45.7	....	....
		S.	7	24 48.9	24 22.2	23 55.7	23 28.5	23 1.7	22 32.4	22 5.7	21 38.4	....	21 11.3	....	....
16	E.	N.	5 47 18.7	47 42.3	48 4.8	48 17.0	48 28.4	48 40.5	48 50.9	49 3.3	49 14.6	49 26.0	....	....	....
		S.	5 53 31.3	53 5.2	52 40.5	52 28.0	52 15.3	52 4.0	51 52.0	51 39.7	51 27.4	51 14.8	....	....	....
	W.	S.	8 35 39.8	36 5.4	36 30.6	36 42.8	36 54.9	37 7.4	37 18.5	37 31.0	37 43.8	37 55.0	....	....	....
		N.	8 41 54.7	41 31.3	41 8.2	40 55.3	40 42.9	40 32.7	40 21.0	40 8.3	39 57.1	39 46.4	....	....	....
16	E.	S.	7	....	39 28.5	39 52.9	40 15.4	40 38.0	40 58.7	41 22.9	41 44.5	....	42 7.4	....	....
		N.	7	....	47 1.7	46 35.0	46 8.0	45 46.3	45 17.6	44 54.9	44 30.3	....	44 5.4	....	....
	W.	N.	9	....	4 17.6	4 46.4	5 10.8	5 36.5	6 3.7	6 26.7	6 50.7	....	7 15.3	....	....
		S.	9	....	11 52.8	11 30.9	11 5.6	10 45.0	10 21.0	9 57.8	9 33.9	....	9 12.0	....	....
16	E.	N.	7 51 27.5	51 53.5	52 18.0	52 30.1	....	52 55.5	53 10.2	....	....	....	....	....	....
		S.	7 58 16.9	57 50.3	57 21.5	57 8.2	....	56 41.5	56 27.6	....	....	....	....	....	....
	W.	S.	10 25 31.9	26 0.0	26 27.7	26 41.5	....	27 8.6	27 21.4	....	....	....	....	....	....
		N.	10 32 22.1	31 58.6	31 31.7	31 17.6	....	30 53.0	30 40.8	....	....	....	....	....	....
17	E.	N.	17 58 44.6	59 15.2	59 45.4	0 15.4	0 46.1	1 17.7	1 49.2	2 22.2	2 55.2	....	3 27.2	....	4 3.9
		S.	18 13 14.8	12 24.2	11 36.7	10 52.3	10 8.8	9 24.0	8 43.5	8 1.4	7 20.9	....	6 43.4	....	6 3.9
	W.	S.	18 53 13.5	54 3.9	54 51.4	55 39.6	56 20.6	57 6.3	57 47.5	58 29.0	59 8.1	....	59 47.5	....	0 26.4
		N.	19 7 46.1	7 15.7	6 46.3	6 15.8	5 45.0	5 13.0	4 41.8	4 9.7	3 35.3	....	3 2.5	....	2 27.3
17	E.	N.	19	....	57 44.3	57 57.4	58 10.8	58 25.4	58 38.9	58 53.0	59 7.2	59 14.5	....	....	....
		S.	20	....	2 18.9	2 4.7	1 50.4	1 35.1	1 20.8	1 6.0	0 51.1	0 44.0	....	....	....
	W.	S.	22	....	18 35.0	18 49.2	19 3.5	19 18.6	19 33.0	19 47.9	20 2.6	20 9.6	....	....	....
		N.	22	....	23 9.8	22 56.4	22 42.5	22 28.2	22 14.0	22 0.2	21 45.9	21 39.4	....	....	....
17	E.	S.	20	....	....	....	....	....	31 41.5	31 58.0	32 16.0	32 24.0	32 32.4	32 41.4	....
		N.	20	....	....	....	....	....	34 53.1	34 34.9	34 16.7	34 8.6	33 58.9	33 50.2	....
	W.	N.	22	....	....	....	....	....	25 44.5	26 4.0	26 22.6	26 30.3	26 39.4	26 48.7	....
		S.	22	....	....	....	....	....	28 58.1	28 40.4	28 22.2	28 15.0	28 6.0	27 57.3	....
17	E.	N.	20 48 14.0	48 39.2	49 3.7	49 15.5	49 28.0	49 41.0	49 52.6	50 6.0	50 17.7	50 30.4	50 43.2	....	....
		S.	20 54 50.9	54 24.2	53 57.5	53 44.6	53 31.2	53 19.0	53 6.4	52 53.4	52 40.4	52 27.0	52 14.5	....	....
	W.	S.	23 27 33.4	28 0.0	28 26.1	28 39.9	28 52.7	29 4.6	29 18.0	29 31.8	29 44.2	29 57.3	30 9.9	....	....
		N.	23 34 10.5	33 45.6	33 20.8	33 9.0	32 55.8	32 43.9	32 31.2	32 18.8	32 6.6	31 54.1	31 41.2	....	....
17	E.	S.	21	49 31.0	49 55.7	50 19.1	50 44.0	51 4.5	51 29.1	51 53.4	52 17.5	....	52 40.9	....	53 5.3
		N.	21	58 20.3	57 49.9	57 20.9	56 53.9	56 27.9	56 0.9	55 34.3	55 8.0	....	54 42.7	....	54 17.7
	W.	N.	23	10 22.3	10 50.6	11 21.1	11 48.6	12 13.7	12 39.9	13 6.8	13 34.0	....	13 58.5	....	14 23.0
		S.	23	19 9.7	18 46.0	18 23.5	17 57.9	17 37.0	17 11.9	16 48.0	16 23.6	....	16 0.0	....	15 35.5
17	E.	S.	22	....	....	....	49 19.3	49 44.3	50 13.5	50 42.5	51 12.2	51 26.4	51 39.5	51 54.9	52 10.0
		N.	22	....	....	....	56 57.7	56 24.0	55 47.4	55 15.3	54 42.4	54 26.7	54 11.1	53 54.6	53 40.0
	W.	N.	23	....	....	....	54 47.1	55 20.9	55 56.0	56 28.7	57 2.8	57 17.4	57 34.2	57 49.0	58 4.5
		S.	0	....	....	....	2 27.9	2 1.7	1 31.1	1 2.3	0 31.5	0 18.1	0 4.9	59 49.0	59 35.3
17	E.	S.	0	....	....	....	....	....	14 6.7	14 56.5	15 46.5	16 9.4	16 37.7	17 5.6	17 34.4
		N.	0	....	....	....	....	....	26 24.9	24 39.5	23 4.3	22 28.5	21 52.1	21 12.1	20 39.7
	W.	N.	0	....	....	....	....	....	43 44.4	45 36.6	47 8.2	47 41.8	48 21.5	49 1.3	49 39.8
		S.	0	....	....	....	....	....	56 9.0	55 19.0	54 26.7	54 3.0	53 35.2	53 5.6	52 40.2
18	E.	S.	6	....	6 44.9	7 12.9	7 37.8	8 3.9	8 32.5	9 2.3	....	....	....	....	....
		N.	6	....	16 11.4	15 33.6	14 58.6	14 26.6	13 53.4	13 21.5	....	....	....	....	....
	W.	N.	7	....	14 55.3	15 31.0	16 3.9	16 36.7	17 12.4	17 43.0	....	....	....	....	....
		S.	7	....	24 20.9	23 51.1	23 23.6	22 59.6	22 31.6	22 2.9	....	....	....	....	....
18	E.	S.	7	....	39 27.5	39 50.1	40 10.6	40 34.7	40 57.9	41 19.8	....	....	....	.. ...	....
		N.	7	....	47 1.1	46 33.7	46 7.1	45 42.1	45 15.7	44 50.8	....	....	....	....	....
	W.	N.	9	....	4 13.8	4 41.3	5 8.1	5 30.8	5 57.6	6 23.6	....	....	....	....	....
		S.	9	....	11 49.0	11 26.6	11 3.7	10 43.2	10 18.3	9 55.0	....	....	....	....	....
18	E.	N.	7 51 24.4	51 50.3	52 16.0	52 29.0	52 42.0	52 54.0	53 6.6	53 19.1	53 32.8	....	....	....	....
		S.	7 58 15.1	57 47.1	57 21.0	57 5.5	56 53.9	56 39.9	56 27.1	56 12.7	55 59.1	....	....	....	....
	W.	S.	10 25 30.0	25 57.6	26 24.7	26 38.4	26 52.5	27 6.0	27 18.1	27 32.2	27 45.2	....	....	....	....
		N.	10 32 20.8	31 55.4	31 29.9	31 16.7	31 3.2	30 51.0	30 39.0	30 25.6	30 11.1	....	....	....	....
19	E.	N.	17 58 43.9	59 14.3	59 43.8	0 12.6	0 44.0	1 17.2	1 48.4	2 19.7	2 55.2	....	3 26.7	....	....
		S.	18 13 16.6	12 23.0	11 35.7	10 51.0	10 6.9	9 23.0	8 40.4	8 1.0	7 21.0	....	6 42.8	....	....
	W.	S.	18 53 12.0	54 2.7	54 51.1	55 36.2	56 20.3	57 4.0	57 45.5	58 25.1	59 6.8	....	59 45.3	....	....
		N.	19 7 45.7	7 15.0	6 45.0	6 15.3	5 44.3	5 12.7	4 40.8	4 8.6	3 35.3	....	3 1.6	.. ....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ' "	"	° ' "		
μ Andromedæ .	279.3	282.0	+0.394	+0.462	+37 52 22.18	−30.64	+37 51 51.54	B.	Fair seeing.
	279.2	282.8							
	280.9	288.4	+0.594						Tolerable seeing.
	284.0	286.0							
60 Aurigæ......	278.4	279.1	+0.356	+0.379	38 34 40.08	+17.11	38 34 57.19	T.	Bad seeing; diffuse; unsteady; moonlight.
	280.3	285.3							
	287.2	290.7	+0.450						Poor seeing
	288.0	291.7							
65 Aurigæ......	270.8	278.8	+0.613	+0.288	36 58 24.68	+20.00	36 58 44.68	T.	Diffuse; moonlight; transits over threads A to VIII.
	277.0	278.8							
	292.3	293.3	+0.006						Diffuse.
	294.0	293.1							
Groomb. 1450	290.4	290.4	+0.088	+0.126	38 24 32.37	+26.78	38 24 59.15	T.	Diffuse; unsteady.
	289.8	291.2							
	293.6	294.3	+0.181						Fair image; very unsteady.
	293.0	295.2							
38 Lyncis	290.4	291.0	+0.106	+0.029	37 17 18.47	+29.06	37 17 47.53	T.	Diffuse; unsteady; transits over threads A to V.
	290.8	291.9							
	294.4	296.7	−0.044						Very faint; diffuse.
	296.7	293.7							
α Lyræ........	250.0	258.0	+1.019	+1.142	38 40 55.11	−22.88	38 40 32.23	B.	Good image; little unsteady.
	247.6	255.9							
	244.1	253.8	+1.363						Good image; little unsteady.
	242.4	254.5							
τ Cygni	246.4	257.6	+0.994	+0.955	37 33 24.54	−36.49	37 32 48.05	T.	Good image; steady.
	250.8	255.5							
	259.6	266.0	+1.025						Good seeing.
	258.6	268.6							
72 Cygni	253.5	257.2	+0.944	+0.931	38 1 13.16	−37.35	38 0 35.81	T.	Good image; steady.
	250.8	262.2							
	260.7	266.8	+1.019						Good seeing.
	258.4	268.6							
1 Lacertæ	251.2	262.4	+1.044	+0.961	37 10 36.98	−37.90	37 9 59.08	T.	Good seeing; slightly diffuse; transits over threads A to IX.
	254.8	260.3							
	262.8	269.3	+1.000						Good seeing; well defined.
	261.6	271.1							
10 Lacertæ	259.2	263.4	+0.769	+0.843	38 27 7.34	−38.12	38 26 29.22	T.	Good seeing; slightly diffuse.
	258.3	266.4							
	260.9	269.4	+1.006						Good seeing; well defined.
	262.0	269.6							
14 Andromedæ .	261.9	266.2	+0.775	+0.911	38 36 13.83	−36.75	38 35 37.08	T.	Good seeing.
	261.1	269.2							
	262.8	270.8	+1.144						Good seeing.
	262.6	272.9							
32 Andromedæ .	264.9	270.6	+0.619	+0.627	38 49 30.49	−32.30	38 48 58.19	T.	Good seeing; slightly diffuse; moon rising.
	265.9	270.1							
	265.9	270.2	+0.700						Slightly diffuse.
	266.3	273.2							
60 Aurigæ......	257.7	256.3	+0.188	+0.252	38 34 39.37	+17.07	38 34 56.44	B.	Not good seeing; hazy.
	259.7	264.1							
	268.0	272.2	+0.344						Tolerable seeing; air thick and damp.
	270.6	271.9							
Groomb. 1450	274.4	269.7	−0.338	−0.012	38 24 32.83	+26.96	38 24 59.79	B.	Poor seeing.
	272.9	272.2							
	276.0	277.9	+0.313						Fair seeing.
	276.1	279.2							
38 Lyncis	272.6	272.4	−0.106	−0.050	37 17 19.28	+29.34	37 17 48.62	B.	Not good seeing; transits over threads A to VII.
	274.3	272.8							
	279.2	279.6	0.000						Poor seeing; bad image.
	279.6	279.2							
α Lyræ........	234.8	243.1	+0.513	+0.627	+38 40 54.69	−22.43	+38 40 32.26	T.	Slightly diffuse.
	234.8	234.7							
	230.0	230.1	+0.781						Slightly diffuse.
	222.0	234.4							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Nov. 19	E.	N.	19 56 44.7	57 11.8	57 25.9	57 40.5	57 54.0	58 7.7	58 22.0	58 35.3	58 49.8	59 4.1	59 11.6	....	....
		S.	20 3 18.2	2 47.9	2 33.8	2 17.8	2 3.4	1 48.9	1 33.8	1 19.4	1 4.3	0 49.4	0 42.7	....	....
	W.	S.	22 17 30.5	18 0.7	18 16.3	18 31.6	18 45.6	19 1.1	19 15.6	19 29.7	19 44.0	19 59.5	20 6.4	....	....
		N.	22 24 2.6	23 35.6	23 21.8	23 6.9	22 54.0	22 40.0	22 25.5	22 11.8	21 58.4	21 44.0	21 37.0	....	....
19	E.	S.	20 48 13.0	48 37.5	49 2.8	49 15.2	49 27.8	49 41.2	49 54.0	50 5.5	50 19.1	50 31.6	....	....	....
		N.	20 54 47.2	54 20.8	53 54.0	53 41.0	53 27.4	53 13.8	53 0.5	52 48.7	52 35.4	52 22.3	....	....	....
	W.	N.	23 27 32.3	27 57.9	28 25.2	28 38.9	28 51.2	29 5.1	29 18.7	29 31.3	39 44.0	29 56.8	....	....	....
		S.	23 34 6.1	33 42.4	33 17.3	33 5.0	32 52.3	32 39.3	32 26.3	32 14.5	32 1.1	31 48.8	....	....	....
19	E.	N.	21	....	49 49.4	50 11.5	50 34.3	50 58.0	51 21.8	51 45.0	52 9.7	52 21.4	52 35.3	....	....
		S.	21	....	57 51.9	57 24.4	56 58.0	56 30.9	56 4.6	55 37.8	55 12.1	54 59.4	54 47.0	....	....
	W.	S.	23	....	10 44.8	11 12.3	11 38.3	12 6.0	12 31.5	12 58.5	13 24.8	13 37.7	13 50.1	....	....
		N.	23	....	18 44.7	18 23.9	17 59.9	17 35.1	17 11.7	16 47.7	16 25.2	16 13.2	16 0.8	....	....
19	E.	N.	22	....	....	....	49 8.1	49 36.6	50 5.5	....	51 4.1	51 19.5	51 33.5	51 47.5	....
		S.	22	....	....	....	57 1.6	56 26.4	55 53.9	....	54 47.4	54 30.8	54 16.3	53 59.4	....
	W.	S.	23	....	....	....	54 36.0	55 10.9	55 45.1	....	56 53.5	57 7.9	57 25.2	57 41.1	....
		N.	0	....	....	....	2 29.7	2 0.8	1 33.7	....	0 35.8	0 20.8	0 7.0	59 49.7	....
19	E.	N.	23	....	46 22.0	46 37.8	46 52.8	47 9.8	47 25.4	47 41.4	47 57.9	48 5.4	48 12.5	....	....
		S.	23	....	51 36.8	51 20.4	51 3.8	50 46.4	50 29.1	50 12.4	49 56.2	49 48.0	49 40.3	....	.....
	W.	S.	1	....	49 31.9	49 48.8	50 5.5	50 24.0	50 39.1	50 57.0	51 13.8	51 22.4	51 29.6	....	....
		N.	1	....	54 47.1	54 31.6	54 17.6	54 0.8	53 44.8	53 28.3	53 12.0	53 3.5	52 56.7	....	....
19	E.	N.	1 20 36.0	21 0.2	21 24.6	21 47.7	22 10.3	22 35.2	22 59.7	23 26.0	23 51.0	....	....	....	....
		S.	1 30 48.4	30 18.2	29 48.3	29 20.0	28 51.4	28 22.3	27 54.1	27 27.8	26 58.4	....	....	....	....
	W.	S.	2 37 23.0	37 55.5	38 24.5	38 54.9	39 22.2	39 50.0	40 17.1	40 46.2	41 14.0	....	....	....	....
		N.	2 47 36.9	47 13.0	46 48.9	46 25.9	46 2.7	45 38.6	45 13.8	44 48.9	44 23.9	....	....	....	....
19	E.	N.	1 20 47.4	21 12.0	21 35.7	21 59.5	22 22.3	22 47.8	23 12.1	23 37.6	24 0.8	....	....	....	....
		S.	1 31 1.0	30 30.1	30 1.0	29 31.8	29 3.4	28 35.0	28 7.5	27 39.8	27 11.7	....	....	....	....
	W.	S.	2 37 13.6	37 42.1	38 12.4	38 42.6	39 9.5	39 40.7	40 6.9	40 37.0	41 1.9	....	....	....	....
		N.	2 47 27.3	47 3.5	46 40.2	46 16.5	45 53.6	45 28.3	45 3.3	44 37.9	44 14.4	....	....	....	....
19	E.	N.	5 47 14.3	47 38.3	48 1.2	....	48 25.0	48 37.4	48 48.7	49 0.1	49 12.0	49 23.7	....	....	....
		S.	5 53 28.9	53 3.8	52 39.2	....	52 14.7	52 2.3	51 50.6	51 38.0	51 25.7	51 13.7	....	....	....
	W.	S.	8 35 36.9	36 3.3	36 26.7	....	36 51.8	37 4.4	37 15.5	37 28.2	37 39.8	37 52.4	....	....	....
		N.	8 41 52.1	41 28.5	41 4.8	....	40 41.5	40 29.2	40 17.7	40 5.2	39 54.9	39 42.3	....	....	....
19	E.	S.	7	....	39 25.3	39 48.9	40 12.7	40 32.7	40 55.4	41 19.0	....	....	....	....	....
		N.	7	....	47 1.0	46 32.5	46 6.5	45 40.9	45 15.0	44 51.4	....	....	....	....	....
	W.	N.	9	....	4 15.0	4 41.3	5 8.8	5 32.2	5 59.4	6 24.0	....	....	....	....	....
		S.	9	....	11 49.0	11 25.3	11 2.5	10 41.9	10 17.7	9 54.9	....	....	....	....	....
19	E.	N.	7 51 24.4	51 49.9	52 15.9	52 27.7	52 40.9	52 52.0	53 6.7	53 18.3	53 32.7	53 44.3	53 57.0	....	....
		S.	7 58 13.9	57 47.0	57 19.0	57 6.1	56 52.2	56 38.2	56 26.0	56 11.7	55 58.5	55 45.3	55 32.6	....	....
	W.	S.	10 25 28.5	25 56.9	26 24.0	26 38.3	26 52.2	27 5.0	27 17.9	27 31.8	27 45.3	27 58.4	28 13.5	....	....
		N.	10 32 20.4	31 54.0	31 28.9	31 15.2	31 2.5	30 50.3	30 38.0	30 24.3	30 11.8	29 58.6	29 45.7	....	....
24	E.	S.	17	....	59 44.4	0 16.1	0 47.4	1 18.6	1 51.5	....	2 58.5	....	3 31.5	....	....
		N.	18	....	11 15.5	10 26.9	9 43.4	9 2.5	8 19.7	....	6 59.9	....	6 22.9	....	....
	W.	N.	18	....	55 0.4	55 47.5	56 33.5	57 13.4	57 55.9	....	59 15.7	....	59 52.4	....	....
		S.	19	....	6 32.4	5 59.1	5 27.7	4 57.0	4 24.0	....	3 17.9	....	2 46.3	....	....
27	E.	S.	17 58 38.9	59 9.7	59 40.6	0 12.0	0 43.5	1 13.9	1 46.3	2 19.5	2 52.1	....	3 27.0	....	....
		N.	18 12 53.4	12 1.4	11 15.1	10 24.5	9 39.9	8 59.3	8 15.3	7 36.4	6 56.6	....	6 20.6	....	....
	W.	N.	18 53 18.3	54 9.9	54 56.7	55 44.3	56 31.7	57 12.0	57 53.8	58 35.5	59 13.0	....	59 51.1	....	....
		S.	19 7 33.1	7 3.4	6 32.5	5 58.6	5 26.3	4 56.0	4 24.0	3 50.9	3 17.0	....	2 44.2	....	....
27	E.	S.	20 48 54.3	49 6.0	....	49 32.6	49 45.0	49 57.3	50 10.0	....	50 34.9	....	....	....	....
		N.	20 53 47.0	53 33.5	....	53 7.3	52 53.0	52 40.5	52 28.2	....	52 3.0	....	....	....	....
	W.	N.	23 28 16.8	28 30.7	....	28 57.9	29 11.7	29 23.7	29 37.4	....	30 2.7	....	....	....	....
		S.	23 33 10.5	32 57.5	....	32 32.0	32 19.1	32 7.1	31 54.8	....	31 29.3	....	....	....	....
27	E.	S.	22	....	....	....	49 9.3	49 34.7	50 3.7	50 33.6	51 4.7	51 16.2	51 30.7	51 45.7	52 0.2
		N.	22	....	....	....	56 47.9	56 16.9	55 41.6	55 7.0	54 35.9	54 18.7	54 3.2	53 47.8	53 29.6
	W.	N.	23	....	....	....	54 34.9	55 11.1	55 44.8	56 15.0	56 50.7	57 7.1	57 24.0	57 38.7	57 54.9
		S.	0	....	....	....	2 17.9	1 49.9	1 21.6	0 50.7	0 23.4	0 11.4	59 54.5	59 37.5	59 24.6
27	E.	S.	0	....	....	....	....	....	13 58.4	14 48.3	15 37.9	15 59.3	16 30.9	16 55.4	17 30.3
		N.	0	....	....	....	....	....	26 20.0	24 36.5	23 6.4	22 22.1	21 48.5	21 4.4	20 26.7
	W.	N.	0	....	....	....	....	....	43 31.0	45 21.9	46 47.1	47 28.0	48 5.7	48 46.2	49 20.6
		S.	0	....	....	....	....	....	56 1.8	55 6.3	54 15.1	53 53.9	53 21.9	52 57.1	52 27.8
27	E.	S.	23	....	....	46 33.1	46 49.2	47 4.5	47 21.4	47 36.9	47 51.1	47 59.8	....	....	....
		N.	23	....	....	51 10.8	50 52.9	50 36.5	50 20.0	50 2.7	49 45.5	49 38.2	....	....	....
	W.	N.	1	....	....	49 44.9	50 2.0	50 18.9	50 35.8	50 51.7	51 9.9	51 16.3	....	....	....
		S.	1	....	....	54 21.9	54 4.7	53 49.9	53 32.6	53 17.7	53 1.2	52 53.5	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
τ Cygni	220.4	232.4	+0.731	+0.628	+37 33 24.81	36.38	+37 32 48.43	B.	Faint but steady; transits over threads B to X.
	226.2	225.9							
	235.4	233.6	+0.575						Good seeing.
	229.5	240.5							
1 Lacertæ	230.3	229.5	+0.650	+0.639	37 10 37.12	−37.93	37 9 59.19	B.	Good seeing; transits over threads A to VIII.
	224.9	236.1							
	232.8	244.3	+0.688						Good seeing.
	239.7	239.2							
10 Lacertæ	226.9	238.8	+0.600	+0.570	38 27 8.05	−38.20	38 26 29.85	B.	Very good seeing.
	234.8	232.5							
	239.1	236.2	+0.581						Very good seeing.
	232.2	244.4							
14 Andromedæ	230.4	241.8	+0.494	+0.516	38 36 14.11	−36.93	38 35 37.18	B.	Good seeing.
	238.7	235.2							
	241.6	239.6	+0.575						Good seeing.
	236.0	247.2							
μ Andromedæ	234.6	245.2	+0.569	+0.585	37 52 23.09	−31.08	37 51 52.01	B.	Good seeing.
	241.1	239.6							
	251.6	252.2	+0.656						Fair seeing; image diffuse.
	247.3	257.2							
59 Andromedæ	243.7	253.2	+0.503	+0.536	38 29 34.60	−23.13	38 29 11.47	B.	Very fair seeing.
	250.8	249.5							
	254.5	256.1	+0.619						Fair seeing; little unsteady.
	252.0	260.3							
B. A. C. 662	243.7	253.2	+0.503	+0.536	38 29 48.47	−23.13	38 29 25.34	B.	Very fair seeing.
	250.8	249.5							
	254.5	256.1	+0.619						Fair seeing; little unsteady.
	252.0	260.3							
65 Aurigæ	264.4	268.4	+0.350	+0.246	36 58 25.43	+20.02	36 58 45.45	T.	Diffuse; moonlight; transits over threads A to VIII.
	265.2	266.8							
	264.7	266.2	+0.175						Diffuse; unsteady; moonlight.
	265.2	266.5							
Groomb. 1450	266.1	266.0	+0.094	+0.178	38 24 32.42	+27.02	38 24 59.44	T.	Diffuse; unsteady; moonlight.
	265.6	267.2							
	264.5	267.2	+0.281						Diffuse; unsteady; moonlight.
	265.0	266.8							
38 Lyncis	260.4	272.4	+0.813	+0.470	37 17 19.36	+29.46	37 17 48.82	T.	Diffuse; nearly steady; transits over threads A to IX.
	266.0	267.0							
	265.4	266.8	+0.188						Diffuse.
	265.6	267.2							
α Lyræ	178.0	182.0	+0.050	+0.022	38 40 52.69	−21.15	38 40 31.54	B.	Unsteady.
	179.9	176.7							
	172.8	172.7	−0.006						Faint at times; steadier; clouds.
	171.7	171.7							
α Lyræ	216.4	229.7	+1.556	+1.402	38 40 52.95	−20.49	38 40 32.46	B.	Quite unsteady; clouds.
	217.6	229.2							
	220.0	230.6	+1.325						Quite unsteady; clouds.
	220.3	230.9							
1 Lacertæ	229.2	238.8	+1.106	+0.943	37 10 36.44	−37.55	37 9 58.89	T.	Faint; diffuse; not steady.
	233.1	241.2							
	244.8	248.4	+0.875						Diffuse.
	242.4	252.8							
14 Andromedæ	240.8	248.8	+0.681	+0.759	38 36 14.66	−37.09	38 35 37.57	T.	Diffuse at times; not quite steady.
	243.1	246.0							
	247.2	250.0	+0.900						Poor seeing.
	243.2	254.8							
32 Andromedæ	245.2	254.4	+0.550	+0.618	38 49 31.92	−33.15	38 48 58.77	T.	Very unsteady.
	250.8	250.4							
	250.8	251.2	+0.738						Very unsteady; diffuse.
	246.4	257.8							
μ Andromedæ	243.0	252.6	+0.750	+0.732	+37 52 23.68	−31.68	+37 51 52.00	T.	Poor seeing.
	247.2	249.6							
	254.1	255.3	+0.788						Very diffuse.
	249.7	261.1							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Nov. 27	E.	S.	1 20 32.7	20 55.1	21 20.1	21 45.7	22 9.5	22 33.6	22 58.5	23 24.3	23 48.4	....	....	....	....
		N.	1 30 42.1	30 7.3	29 40.4	29 7.8	28 40.1	28 13.1	27 42.9	27 15.9	26 47.2	....	....	....	....
	W.	N.	2 37 18.3	37 50.2	38 19.5	38 48.9	39 20.6	39 47.8	40 17.2	40 44.9	41 9.5	....	....	....	....
		S.	2 47 26.5	47 2.5	46 37.2	46 15.9	45 48.5	45 26.1	45 0.7	44 35.0	44 10.4	....		....	....
27	E.	S.	1 20 43.4	21 5.4	21 31.3	21 57.0	22 21.3	22 43.7	23 9.0	23 33.3	23 59.7	....	....	....	....
		N.	1 30 55.4	30 24.5	29 55.1	29 23.7	28 52.4	28 25.1	27 55.4	27 29.2	27 0.1	....	....	....	....
	W.	N.	2 37 5.0	37 37.3	38 6.3	38 39.7	39 6.8	39 34.8	40 4.8	40 34.5	40 58.6	....	....	....	....
		S.	2 47 17.9	46 55.5	46 28.1	46 5.4	45 40.0	45 17.6	44 52.6	44 25.4	44 0.4	....	....	....	....
27	E.	N.	6	....	6 35.1	7 0.3	7 26.3	7 53.0	8 19.8	8 47.4	9 16.7	....	9 44.5	....	....
		S.	6	....	16 5.0	15 30.9	14 56.7	14 21.7	13 49.1	13 18.0	12 45.8	....	12 16.3	....	....
	W.	S.	7	....	14 43.0	15 16.1	15 48.9	16 22.0	16 56.7	17 29.5	18 0.5	....	18 29.5	....	....
		N.	7	....	24 13.8	23 48.7	23 20.7	22 52.0	22 27.3	21 59.1	21 33.2	....	21 4.4	....	....
27	E.	S.	5 47 28.4	47 53.0	48 5.4	48 17.4	48 29.3	48 42.1	48 52.2	49 4.6	....	....	....	....	....
		N.	5 52 56.3	52 30.7	52 17.7	52 5.4	51 53.2	51 39.6	51 28.7	51 16.3	....	....	....	....	....
	W.	N.	8 35 53.4	36 20.4	36 32.0	36 45.0	36 57.0	37 10.4	37 21.5	37 33.6	....	....	....	....	....
		S.	8 41 20.7	40 57.3	40 43.9	40 32.4	40 19.4	40 8.5	39 57.0	39 45.2	....	....	....	....	....
27	E.	N.	7	....	39 14.1	39 35.8	39 58.5	40 22.1	40 44.0	41 6.5	41 30.4	41 42.0	41 53.0	....	....
		S.	7	....	46 51.0	46 26.1	46 0.6	45 35.8	45 11.1	44 45.9	44 22.0	44 9.2	43 55.5	....	....
	W.	S.	9	....	4 6.1	4 31.9	4 56.4	5 22.7	5 45.8	6 13.7	6 37.2	6 48.8	7 1.9	....	....
		N.	9	....	11 45.4	11 23.1	11 1.0	10 37.0	10 14.7	9 51.5	9 28.7	9 18.5	9 6.9	....	....
27	E.	S.	7 51 16.0	51 40.7	52 6.5	52 19.2	52 32.7	52 47.2	53 0.1	53 11.4	53 24.8	....	....	....	....
		N.	7 58 4.8	57 37.5	57 10.6	56 55.8	56 42.6	56 27.7	56 14.6	56 2.8	55 47.6	....	....	....	....
	W.	N.	10 25 22.4	25 49.8	26 16.6	26 31.3	26 45.7	26 59.8	27 13.7	27 25.5	27 39.0	....	....	....	....
		S.	10 32 11.7	31 47.4	31 21.6	31 8.8	30 54.7	30 42.0	30 27.7	30 16.0	30 1.4	....	....	....	....
27	E.	N.	9 49 48.4	50 12.3	50 39.3	51 2.1	51 27.0	51 53.4	52 16.9	52 40.9	53 8.6	....	53 33.9	....	....
		S.	10 0 18.7	59 46.4	59 14.1	58 46.7	58 16.9	57 46.6	57 17.5	56 49.4	56 21.2	....	55 56.0	....	....
	W.	S.	11 4 49.8	5 26.3	5 57.4	6 27.0	6 53.8	7 23.1	7 54.5	8 22.5	8 50.6	....	9 15.6	....	....
		N.	11 15 20.9	14 57.2	14 32.0	14 7.8	13 44.9	13 19.5	12 55.5	12 27.3	12 2.0	....	11 37.4	....	....
28	E.	N.	17 58 31.9	59 3.1	59 32.7	0 3.5	0 34.2	1 6.3	1 37.4	2 9.9	2 43.3	....	3 16.1	....	3 52.9
		S.	18 13 0.9	12 9.1	11 22.1	10 37.7	9 53.4	9 10.0	8 27.8	7 47.8	7 7.1	....	6 29.9	....	5 49.8
	W.	S.	18 53 6.7	53 58.7	54 45.4	55 31.9	56 15.4	56 59.3	57 40.4	58 21.5	59 1.7	....	59 39.1	....	0 18.9
		N.	19 7 39.1	7 7.6	6 38.4	6 7.9	5 38.1	5 6.7	4 34.0	4 2.9	3 29.4	....	2 55.9	....	2 19.0
28	E.	N.	21 48 54.9	49 17.6	49 40.7	50 2.6	50 25.3	50 50.0	51 12.4	51 36.2	52 0.5	....	52 24.2	....	....
		S.	21 58 40.0	58 10.6	57 41.6	57 15.1	56 48.5	56 21.9	55 54.9	55 28.7	55 1.1	....	54 37.7	....	....
	W.	S.	23 9 39.4	10 7.6	10 35.6	11 2.0	11 29.3	11 56.0	12 22.9	12 48.7	13 16.5	....	13 41.0	....	....
		N.	23 19 23.7	19 0.2	18 37.9	18 14.4	17 53.1	17 28.5	17 5.1	16 43.6	16 18.0	....	15 54.0	....	....
28	E.	S.	22	....	....	....	....	....	50 3.3	50 30.6	51 1.5	51 14.7	51 28.5	51 43.4	....
		N.	22	....	....	....	....	....	55 38.0	55 2.0	54 29.4	54 14.0	53 57.3	53 43.5	....
	W.	N.	23	....	....	....	....	....	55 44.3	56 18.0	56 51.4	57 6.4	57 22.2	57 37.8	....
		S.	0	....	....	....	....	....	1 20.3	0 49.1	0 19.8	0 7.1	59 52.1	59 36.8	....
28	E.	S.	0	....	....	....	....	....	13 56.0	14 42.5	15 34.9	15 59.9	16 25.0	16 55.6	17 24.2
		N.	0	....	....	....	....	....	26 17.8	24 27.8	22 56.7	22 14.9	21 36.2	20 59.6	20 24.9
	W.	N.	0	....	....	....	....	....	43 29.3	45 19.4	46 54.4	47 31.4	48 10.0	48 48.4	49 23.6
		S.	0	....	....	....	....	....	55 56.4	55 4.4	54 15.1	53 49.6	53 21.1	52 51.8	52 23.3
28	E.	S.	23	....	46 14.5	46 32.0	46 47.8	47 3.1	47 19.8	47 36.4	47 52.0	47 59.6	48 7.0	....	....
		N.	23	....	51 26.5	51 8.4	50 51.1	50 34.6	50 18.0	50 0.7	49 43.5	49 35.4	49 27.9	....	....
	W.	N.	1	....	49 25.2	49 42.9	50 0.7	50 16.0	50 34.0	50 51.2	51 7.4	51 15.2	51 23.7	....	....
		S.	1	....	54 36.6	54 18.9	54 3.7	53 48.5	53 31.8	53 14.9	53 0.1	52 52.4	52 44.3	....	....
28	E.	S.	1 20 31.1	20 54.0	21 17.0	21 43.9	22 7.6	22 30.3	22 55.6	23 21.0	23 46.4	....	24 9.5	....	....
		N.	1 30 38.0	30 6.0	29 36.6	29 5.7	28 35.7	28 8.8	27 41.0	27 13.3	26 44.5	....	26. 18.7	....	....
	W.	N.	2 37 16.5	37 47.9	38 18.9	38 49.6	39 19.0	39 45.3	40 15.5	40 43.3	41 10.4	....	41 37.0	....	....
		S.	2 47 25.9	47 1.8	46 37.0	46 13.2	45 48.0	45 23.9	45 0.3	44 33.3	44 8.2	....	43 44.0	....	....
28	E.	S.	1 20 40.7	21 5.1	21 28.4	21 54.3	22 18.7	22 41.3	23 7.5	23 33.0	23 57.6	....	24 21.4	....	....
		N.	1 30 52.7	30 21.9	29 50.0	29 20.7	28 49.0	28 21.4	27 53.5	27 25.7	26 57.6	....	26 30.4	....	....
	W.	N.	2 37 5.1	37 36.2	38 6.1	38 38.0	39 7.8	39 34.9	40 4.0	40 31.3	40 59.6	....	41 26.1	....	....
		S.	2 47 16.9	46 52.4	46 28.4	46 3.0	45 37.0	45 14.4	44 50.5	44 24.4	43 58.5	....	43 34.4	....	....
28	E.	N.	6	....	6 32.9	6 57.9	7 25.2	7 53.5	8 20.0	8 45.8	9 16.6	....	9 43.6	....	10 14.3
		S.	6	....	16 2.4	15 27.5	14 55.9	14 22.7	13 50.9	13 18.1	12 47.2	....	12 16.6	....	11 43.7
	W.	S.	7	....	14 44.2	15 14.0	15 50.2	16 22.0	16 54.6	17 25.1	17 58.5	....	18 29.7	....	19 2.0
		N.	7	....	24 10.8	23 44.8	23 19.6	22 53.5	22 25.0	21 58.7	21 31.0	....	21 4.5	....	20 34.5
28	E.	S.	5 47 52.7	48 4.9	48 16.6	48 28.7	48 41.0	....	49 4.9	49 17.0	49 28.7	....	....	....	....
		N.	5 52 29.5	52 18.0	52 4.9	51 52.2	51 39.8	....	51 14.6	51 3.4	50 51.0	....	....	....	....
	W.	N.	8 36 18.9	36 31.0	36 43.7	36 57.0	37 8.9	....	37 33.2	37 46.0	37 58.2	....	....	....	....
		S.	8 40 56.1	40 45.1	40 32.2	40 20.3	40 8.0	....	39 44.4	39 32.9	39 20.2	....	....	....	....

OBJECT	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
59 Andromedæ	249.2	256.7	+0.431	+0.549	+38 29 35.90	−24.00	+38 29 11.90	T.	Unsteady; not well defined.
	254.3	253.7							
	258.2	256.3	+0.719						Bad seeing; diffuse; unsteady.
	250.8	264.2							
B. A. C. 662	249.2	256.7	+0.431	+0.549	38 29 49.77	−24.00	38 29 25.77	T.	Unsteady; poorly defined.
	254.3	253.7							
	258.2	256.3	+0.719						Bad seeing; very poor image; diffuse; unsteady.
	250.8	264.2							
60 Aurigæ	254.1	257.2	+0.850	+0.721	38 34 40.01	+16.77	38 34 56.78	B.	Not good seeing; image unsteady; haze.
	253.0	263.5							
	259.0	269.1	+0.663						Poor seeing; image steadier but diffuse; haze.
	265.1	265.6							
65 Aurigæ	247.1	256.8	+0.906	+0.777	36 58 25.19	+20.00	36 58 45.19	B.	Poor seeing; image much diffuse; haze; transits over threads B to VII.
	252.0	256.8							
	269.0	268.8	+0.750						Poor seeing; haze.
	263.4	275.6							
Groomb. 1450	266.7	265.2	+0.494	+0.633	38 24 31.32	+27.46	38 24 58.78	B.	Poor seeing; bad image; haze.
	261.5	271.9							
	264.0	276.7	+0.844						Poor seeing; haze.
	270.7	271.5							
38 Lyncis	261.3	272.4	+0.675	+0.706	37 17 17.85	+30.25	37 17 48.10	B.	Not good seeing; image much diffuse; haze; transits over threads A to VII.
	267.9	267.6							
	272.9	272.4	+0.831						Bad seeing; image very diffuse; haze.
	266.2	280.0							
38 Leonis Min.	272.2	270.8	+0.725	+0.768	38 30 37.66	+32.82	38 31 10.48	B.	Not good seeing; image unsteady; diffuse; light haze.
	265.8	278.8							
	266.0	281.2	+0.900						Poor seeing; unsteady; indistinct; diffuse; light haze.
	274.4	273.6							
α Lyræ	234.8	245.2	+1.450	+1.401	38 40 52.74	−20.28	38 40 32.46	T.	At times very diffuse; not quite steady.
	233.2	246.0							
	230.4	243.2	+1.450						Diffuse; nearly steady.
	229.8	240.2							
10 Lacertæ	239.2	249.2	+1.231	+1.189	38 27 7.77	−38.00	38 26 29.77	B.	Fair seeing; light haze.
	240.0	249.7							
	244.4	255.5	+1.250						Tolerable seeing.
	246.7	255.6							
14 Andromedæ	243.9	253.3	+1.175	+1.173	38 36 14.12	−37.12	38 35 37.00	B.	Poor seeing; diffuse.
	244.5	253.9							
	248.8	257.1	+1.275						Fair seeing.
	246.9	259.0							
32 Andromedæ	247.3	258.2	+1.050	+1.043	38 49 31.44	−33.22	38 48 58.22	B.	Fair seeing.
	249.4	255.3							
	249.2	255.7	+1.125						Fair seeing.
	247.9	259.4							
μ Andromedæ	246.8	258.4	+1.238	+1.138	37 52 24.17	−31.76	37 51 52.41	B.	Fair seeing.
	248.7	256.9							
	252.2	259.2	+1.156						Good seeing.
	249.9	261.4							
59 Andromedæ	249.6	259.7	+1.100	+1.107	38 29 35.51	−24.10	38 29 11.41	B.	Good seeing.
	251.6	259.1							
	252.8	260.0	+1.219						Good seeing.
	251.0	263.3							
B. A. C. 662	249.6	259.7	+1.100	+1.107	38 29 49.51	−24.10	38 29 25.41	B.	Good seeing.
	251.6	259.1							
	252.8	260.0	+1.219						Good seeing.
	251.0	263.3							
60 Aurigæ	262.3	268.6	+1.094	+1.110	38 34 40.64	+16.77	38 34 57.41	T.	Fair seeing; clear; well defined at times; then diffuse.
	259.2	270.4							
	261.2	273.1	+1.244						Not good seeing; diffuse at times; unsteady.
	263.1	271.1							
65 Aurigæ	260.7	270.9	+1.113	+1.081	+36 58 25.45	+20.04	+36 58 45.49	T.	Fair seeing.
	261.6	269.2							
	266.8	274.0	+1.200						Not good seeing; diffuse.
	264.8	276.8							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Nov. 28	E.	N.	7	....	39 15.9	39 34.9	39 58.6	40 20.2	40 43.2	....	41 28.7	....	41 51.5	....	42 15.4
		S.	7	....	46 52.5	46 26.6	46 1.5	45 34.0	45 9.9	....	44 20.6	....	43 56.4	....	43 31.0
	W.	S.	9	....	4 3.0	4 29.1	4 55.4	5 20.0	5 46.0	....	6 35.7	....	7 1.0	....	7 24.4
		N.	9	....	11 42.3	11 20.2	10 58.3	10 37.5	10 14.1	....	9 28.9	....	9 5.7	....	8 41.5
28	E.	S.	7 52 5.9	52 18.5	52 33.0	52 45.7	52 59.1	53 11.4	53 24.5	53 37.4	53 50.4	....	....	....	....
		N.	7 57 9.4	56 55.8	56 42.0	56 27.2	56 13.7	56 1.8	55 47.0	55 34.0	55 20.5	....	....	....	....
	W.	N.	10 26 17.8	26 31.2	26 44.4	26 58.5	27 12.9	27 25.9	27 39.0	27 52.6	28 6.3	....	....	....	....
		S.	10 31 20.1	31 6.7	30 53.8	30 39.9	30 27.6	30 15.1	30 1.8	29 49.1	29 35.7	....	....	....	....
28	E.	N.	9 49 48.9	50 14.1	50 37.0	51 1.3	51 26.0	51 51.3	52 16.3	52 39.9	53 8.1	....	53 29.8	....	53 58.7
		S.	10 0 15.7	59 43.4	59 13.5	58 42.7	58 14.1	57 43.5	57 16.0	56 47.5	56 19.7	....	55 51.7	....	55 22.2
	W.	S.	11 4 51.0	5 22.5	5 53.6	6 23.7	6 54.4	7 24.0	7 50.5	8 19.3	8 51.3	....	9 16.5	....	9 45.1
		N.	11 15 19.8	14 55.7	14 29.9	14 5.0	13 43.3	13 19.2	12 53.6	12 29.1	12 3.3	....	11 38.0	....	11 10.3
29	E.	S.	7	....	....	39 38.2	40 1.4	40 21.9	40 44.4	41 8.0	41 32.0	41 42.2	41 52.6	42 4.1	....
		N.	7	....	....	46 21.0	45 54.3	45 29.6	45 3.4	44 39.3	44 15.8	44 2.6	43 49.3	43 36.7	....
	W.	N.	9	....	....	4 34.6	4 59.4	5 24.4	5 50.3	6 17.0	6 39.7	6 51.6	7 3.3	7 15.6	....
		S.	9	....	....	11 16.4	10 54.8	10 33.4	10 10.2	9 47.2	9 23.6	9 11.7	9 0.9	8 49.9	....
29	E.	N.	7 51 12.9	51 38.0	52 3.0	52 16.4	....	52 42.3	52 56.3	53 7.8	53 20.8	53 34.0	....	....	....
		S.	7 58 2.8	57 35.8	57 9.2	56 55.2	....	56 28.2	56 14.0	56 1.3	55 47.6	55 34.6	....	....	....
	W.	S.	10 25 20.2	25 47.5	26 15.4	26 29.1	....	26 56.4	27 9.6	27 23.1	27 36.4	27 49.3	....	....	....
		N.	10 32 12.1	31 46.0	31 20.8	31 6.9	....	30 42.3	30 29.6	30 16.6	30 2.1	29 51.1	....	....	....
30	E.	S.	17 58 36.3	59 5.0	59 36.7	0 9.0	0 40.4	1 10.7	1 43.2	2 16.6	2 50.8	....	3 22.5	....	3 57.1
		N.	18 12 46.6	11 55.3	11 4.7	10 17.6	9 33.1	8 53.8	8 8.8	7 29.0	6 51.3	....	6 15.2	....	5 35.7
	W.	N.	18 53 21.9	54 10.9	54 56.1	55 44.8	56 32.4	57 12.2	57 54.1	58 35.7	59 15.2	....	59 50.5	....	0 29.8
		S.	19 7 29.3	6 58.7	6 28.3	5 55.8	5 23.1	4 53.4	4 20.2	3 46.2	3 14.1	....	2 41.9	....	2 7.2
30	E.	N.	20 48 49.4	49 2.3	49 14.2	49 26.9	49 38.5	....	....	....	....	....	....	....	....
		S.	20 53 44.5	53 31.3	53 18.4	53 5.8	52 54.7	....	....	....	....	....	....	....	....
	W.	S.	23 28 11.8	28 25.3	28 38.6	28 51.8	29 4.4	....	....	....	....	....	....	....	....
		N.	23 33 7.6	32 54.9	32 42.2	32 30.0	32 17.7	....	....	....	....	....	....	....	....
30	E.	S.	21	....	49 42.9	50 6.8	50 29.9	50 53.0	51 18.4	51 41.7	52 2.8	....	....	....	....
		N.	21	....	57 34.3	57 6.0	56 37.7	56 12.1	55 43.6	55 16.6	54 52.3	....	....	....	....
	W.	N.	23	....	10 37.5	11 4.7	11 33.0	11 57.7	12 27.0	12 52.6	13 18.8	....	....	....	....
		S.	23	....	18 31.6	18 8.3	17 43.8	17 21.4	16 56.7	16 33.8	16 8.9	....	....	....	....
30	E.	N.	22	....	....	....	....	....	....	50 25.0	50 55.3	51 9.0	51 24.4	51 39.3	....
		S.	22	....	....	....	....	....	....	55 9.1	54 34.6	54 19.4	54 3.3	53 44.0	....
	W.	S.	23	....	....	....	....	....	....	56 7.3	56 42.0	56 55.7	57 13.1	57 30.7	....
		N.	0	....	....	....	....	....	....	0 51.7	0 25.2	0 10.4	59 55.3	59 39.3	....
30	E.	N.	0	....	....	....	....	....	13 43.3	....	15 22.8	15 48.7	16 13.7	16 45.8	17 15.3
		S.	0	....	....	....	....	....	26 36.7	....	23 9.6	22 25.5	21 51.4	21 16.4	20 32.3
	W.	S.	0	....	....	....	....	....	43 1.3	....	46 27.5	47 11.2	47 52.8	48 31.2	49 11.0
		N.	0	....	....	....	....	....	56 4.3	....	54 23.4	53 56.5	53 26.3	52 59.4	52 32.0
30	E.	N.	23	....	....	46 25.5	46 41.6	46 58.5	47 14.3	47 30.6	47 47.3	47 54.5	....	....	....
		S.	23	....	....	51 9.6	50 52.9	50 34.6	50 20.0	50 2.1	49 45.4	49 37.4	....	....	....
	W.	S.	1	....	....	49 36.8	49 53.3	50 11.1	50 27.7	50 44.2	51 1.6	51 9.8	....	....	....
		N.	1	....	....	54 20.2	54 5.8	53 48.0	53 33.4	53 16.8	53 1.5	52 52.4	....	....	....
30	E.	N.	1	20 50.1	21 12.7	21 38.0	22 1.0	22 27.1	22 51.6	23 15.0	23 40.7	....	24 4.7	....	....
		S.	1	30 9.2	29 38.3	29 10.1	28 42.0	28 10.9	27 42.7	27 15.3	26 47.4	....	26 21.5	....	....
	W.	S.	2	37 40.7	38 13.6	38 41.0	39 8.9	39 38.1	40 5.6	40 33.2	41 1.9	....	41 29.3	....	....
		N.	2	47 1.0	46 37.1	46 13.1	45 49.4	45 25.8	45 2.0	44 36.0	44 11.9	....	43 47.1	....	....
30	E.	N.	1	21 0.4	21 23.6	21 49.2	22 13.7	22 39.3	23 2.5	....	23 53.1	....	24 16.7	....	....
		S.	1	30 23.7	29 52.3	29 23.4	28 55.3	28 22.5	27 55.8	....	27 0.4	....	26 34.2	....	....
	W.	S.	2	37 28.4	37 59.9	38 29.6	38 59.0	39 26.3	39 56.6	....	40 49.9	....	41 16.9	....	....
		N.	2	46 52.6	46 27.4	46 4.7	45 41.3	45 15.5	44 52.0	....	44 1.6	....	43 35.8	....	....
30	E.	S.	6	....	....	....	7 28.9	7 53.7	....	8 50.1	9 16.9	....	9 45.3	....	10 13.8
		N.	6	....	....	....	14 47.3	14 17.0	....	13 9.9	12 39.3	....	12 9.9	....	11 39.9
	W.	N.	7	....	....	....	15 55.4	16 24.0	....	17 29.7	18 2.3	....	18 32.6	....	19 1.5
		S.	7	....	....	....	23 13.3	22 48.1	....	21 51.7	21 23.0	....	20 56.0	....	20 26.7
30	E.	N.	5	....	48 14.3	48 24.2	48 35.1	48 48.6	49 0.8	49 11.9	....	....	....	....	....
		S.	5	....	52 3.2	51 51.1	51 39.2	51 26.8	51 14.6	51 2.7	....	....	....	....	....
	W.	S.	8	....	36 41.0	36 53.3	37 4.5	37 17.1	37 28.8	37 41.0	....	....	....	....	....
		N.	8	....	40 30.4	40 19.7	40 7.8	39 55.0	39 43.7	39 32.0	....	....	....	....	....
30	E.	S.	7	....	39 12.9	39 37.0	40 0.3	....	40 44.5	41 7.7	41 30.6	....	41 53.0	....	42 17.4
		N.	7	....	46 47.5	46 20.5	45 54.1	....	45 4.1	44 38.0	44 12.9	....	43 49.7	....	43 26.3
	W.	N.	9	....	4 3.1	4 30.4	4 59.3	....	5 48.3	6 13.4	6 37.9	....	7 1.9	....	7 26.3
		S.	9	....	11 38.7	11 15.8	10 52.3	....	10 7.5	9 43.3	9 21.1	....	8 59.2	....	8 35.3

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
Groomb. 1450	265.2	270.8	+0.975	+1.053	+38 24 32.37	+27.55	+38 24 59.92	T.	Not good seeing.
	263.2	273.2							
	265.6	277.2	+1.250						Diffuse.
	267.2	275.6							
38 Lyncis......	263.2	261.2	+0.250	+0.623	37 17 17.76	+30.39	37 17 48.15	T.	Diffuse.
	265.6	271.6							
	270.4	276.9	+1.081						Fair image.
	268.4	279.2							
38 Leonis Min..	270.2	275.3	+0.894	+1.013	38 30 37.42	+33.02	38 31 10.44	T.	Poor seeing; diffuse.
	268.8	278.0							
	268.6	280.6	+1.250						Faint and very diffuse.
	270.8	278.8							
Groomb. 1450	264.2	278.0	+1.788	+1.746	38 24 31.88	+27.64	38 24 59.52	B.	Good seeing.
	264.0	278.8							
	264.0	278.9	+1.906						Very faint; clouds.
	263.6	279.2							
38 Lyncis......	264.0	278.8	+1.775	+1.604	37 17 17.49	+30.51	37 17 48.00	B.	Faint at times; steady; clouds; transits over threads A to VIII.
	264.4	278.0							
	263.9	279.3	+1.650						Dimmed; steady.
	265.9	276.9							
α Lyræ........	242.2	257.2	+1.650	+1.557	38 40 51.72	−19.84	38 40 31.88	T.	Fair image; not quite steady.
	241.4	252.8							
	237.8	250.2	+1.588						Good seeing.
	234.8	247.8							
1 Lacertæ.....	230.4	244.8	+1.600	+1.446	37 10 37.92	−37.49	37 10 0.43	B.	Very faint; steady.
	232.8	244.0							
	244.9	255.4	+1.444						Good seeing.
	244.1	256.7							
10 Lacertæ.....	239.0	248.1	+1.244	+1.343	38 27 8.13	−38.01	38 26 30.12	B.	Fair seeing; wires unilluminated before reversal.
	238.6	249.4							
	242.5	256.2	+1.556						Good seeing.
	244.4	255.6							
14 Andromedæ .	241.5	253.3	+1.269	+1.334	38 36 15.42	−37.22	38 35 38.20	B.	Fair seeing.
	244.4	252.9							
	244.9	256.3	+1.513						Good seeing.
	244.4	257.2							
32 Andromedæ .	245.7	257.2	+1.356	+1.304	38 49 32.10	−33.41	38 48 58.69	B.	Good seeing.
	246.5	256.7							
	245.6	256.8	+1.363						Good seeing.
	245.9	256.5							
μ Andromedæ .	244.5	256.3	+1.244	+1.277	37 52 24.74	−31.95	37 51 52.79	B.	Good seeing.
	246.7	254.8							
	245.5	256.1	+1.438						Fair seeing; rather diffuse.
	244.8	257.2							
59 Andromedæ .	245.5	256.1	+1.206	+1.294	38 29 36.71	−24.34	38 29 12.37	B.	Good seeing.
	246.7	255.4							
	247.8	259.2	+1.500						Good seeing.
	248.1	260.7							
B. A. C. 662..	245.5	256.1	+1.206	+1.294	38 29 50.79	−24.35	38 29 26.44	B.	Good seeing.
	246.7	255.4							
	247.8	259.2	+1.500						Good seeing.
	248.1	260.7							
60 Aurigæ......	261.2	270.8	+1.075	+1.154	38 34 40.58	+16.74	38 34 57.32	T.	Very faint at times.
	261.9	269.5							
	261.9	270.8	+1.356						Very faint at times; well defined; steady.
	260.4	273.2							
65 Aurigæ......	261.6	270.8	+1.375	+1.258	36 58 25.41	+20.08	36 58 45.49	T.	Poor seeing; very faint at times.
	259.8	272.6							
	259.3	272.7	+1.313						Well defined; steady.
	262.4	270.0							
Groomb. 1450	261.6	270.8	+0.975	+1.081	+38 24 32.43	+27.72	+38 25 0.15	T.	Faint; fairly well defined.
	262.8	269.2							
	262.3	270.8	+1.306						Good seeing.
	260.8	273.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Nov. 30	E.	N.	7 52 3.4	52 16.2	52 28.6	52 41.9	52 54.3	53 7.0	53 19.7	53 32.7	53 47.1	....	....	....	....
		S.	7 57 7.6	56 53.9	56 39.6	56 26.7	56 13.4	56 0.1	55 47.7	55 33.7	55 20.6	....	....	....	....
	W.	S.	10 26 13.9	26 28.0	26 41.9	26 55.0	27 7.5	27 21.4	27 34.5	27 47.3	28 1.3	....	....	....	....
		N.	10 31 19.1	31 6.0	30 52.4	30 39.7	30 27.6	30 15.0	30 1.9	29 49.0	29 35.9	....	....	....	....
30	E.	N.	9	....	50 38.0	....	51 27.7	51 50.3	....	....	53 7.7	....	53 33.9	....	....
		S.	9	....	59 7.0	....	58 6.5	57 38.3	....	....	56 11.1	....	55 45.0	....	....
	W.	S.	11	....	5 55.8	....	6 59.0	7 24.9	....	....	8 51.0	....	9 18.1	....	....
		N.	11	....	14 27.9	....	13 36.6	13 12.9	....	... ..	11 56.9	....	11 30.0	....	....
Dec. 3	E.	N.	19 56 57.4	57 11.5	57 25.9	57 39.0	57 54.7	58 7.5	58 22.4	58 35.3	58 50.2	....	....	....	....
		S.	20 2 31.9	2 16.6	2 1.5	1 47.3	1 31.9	1 17.8	1 3.5	0 48.1	0 34.0	....	....	....	....
	W.	S.	22 17 48.4	18 3.0	18 18.1	18 31.9	18 49.7	19 2.3	19 16.5	19 30.4	19 47.7	....	....	....	....
		N.	22 23 19.6	23 5.3	22 52.0	22 39.3	22 24.1	22 10.8	21 57.0	21 42.5	21 28.5	....	....	....	....
3	E.	S.	20	48 59.6	49 12.9	49 25.6	49 38.7	49 50.0	50 3.1	50 16.7	....	....	....	....	....
		N.	20	53 27.4	53 13.6	53 0.0	52 46.9	52 34.0	52 21.0	52 8.0	....	....	....	....	....
	W.	N.	23	28 22.3	28 37 0	28 49.8	29 2.3	29 14.2	29 27.9	29 42.0	....	....	....	....	....
		S.	23	32 51.2	32 38.8	32 25.9	32 13.6	32 1.5	31 48.0	31 35.2	....	....	....	....	....
3	E.	N.	21 48 50.7	49 12.0	49 35.5	49 58.5	50 23.3	50 44.8	51 7.8	51 31.4	51 56.1	....	52 20.1	....	....
		S.	21 58 35.0	58 5.1	57 34.6	57 8.6	56 39.5	56 15.0	55 48.4	55 22.0	54 56.6	....	54 31.5	....	....
	W.	S.	23 9 34.4	10 2.7	10 31.5	10 59.1	11 28.5	11 53.8	12 20.1	12 46.4	13 14.6	....	13 38.0	....	....
		N.	23 19 14.9	18 51.4	18 29.3	18 6.4	17 41.0	17 19.8	16 57.5	16 33.5	16 9.4	....	15 45.0	....	....
3	E.	N.	0	....	....	....	....	....	13 44.0	....	15 24.1	15 52.0	16 15.6	16 46.7	17 15.5
		S.	0	....	....	....	....	....	26 30.6	....	23 9.9	22 28.3	21 50.5	21 12.0	20 29.4
	W.	S.	0	....	....	....	....	....	43 4.0	....	46 27.1	47 8.5	47 53.8	48 28.0	49 7.7
		N.	0	....	....	....	....	....	56 0.0	....	54 14.9	53 51.6	53 26.2	52 54.6	52 25.4
3	E.	S.	23 45 2.9	45 35.9	45 52.4	46 8.0	46 23.6	46 40.7	46 55.5	47 12.0	47 28.6	....	....	....	....
		N.	23 52 32.0	51 56.5	51 38.6	51 21.3	51 3.8	50 46.9	50 31.4	50 13.5	49 55.5	....	....	....	....
	W.	N.	1 48 7.3	48 42.0	48 59.5	49 17.4	49 36.4	49 52.9	50 8.9	50 26.1	50 43.8	....	....	....	....
		S.	1 55 35.6	55 2.5	54 47.4	54 30.5	54 13.2	53 57.6	53 40.6	53 24.3	53 8.5	....	....	....	....
3	E.	N.	1	20 47.3	21 11.6	21 36.4	22 0.8	22 24.6	22 49.1	23 13.9	23 38.0	....	24 1.4	....	....
		S.	1	30 2.8	29 33.0	29 4.8	28 31.9	28 6.0	27 39.9	27 11.0	26 43.8	....	26 18.4	....	....
	W.	S.	2	37 38.2	38 8.3	38 36.3	39 6.5	39 32.9	40 1.6	40 30.5	41 0.8	....	41 24.0	....	....
		N.	2	46 56.0	46 32.6	46 8.7	45 43.3	45 20.0	44 55.6	44 30.8	44 4.9	....	43 40.9	....	....
3	E.	N.	1	20 58.0	21 25.0	21 48.0	22 12.0	22 36.4	22 59.0	23 24.0	23 50.0	....	24 16.3	....	....
		S.	1	30 16.0	29 45.2	29 16.2	28 47.4	28 18.3	27 52.0	27 25.0	26 57.2	....	26 30.8	....	....
	W.	S.	2	37 25.0	37 55.2	38 28.0	38 56.2	39 23.0	39 48.9	40 18.4	40 48.7	....	41 14.0	....	....
		N.	2	46 46.0	46 21.7	45 59.6	45 33.6	45 10.2	44 46.0	44 20.6	43 55.2	....	43 31.7	....	....
3	E.	S.	7	....	....	....	52 53.5	53 5.2	53 19.0	53 31.9	53 46.2	53 51.2	53 57.9	....	....
		N.	7	....	....	....	56 7.2	55 55.8	55 40.7	55 28.5	55 14.4	55 7.2	55 0.9	....	....
	W.	N.	10	....	....	....	27 7.7	27 19.3	27 34.2	27 47.5	28 2.4	28 6.9	28 14.9	....	......
		S.	10	....	....	....	30 21.8	30 8.2	29 55.8	29 42.7	29 29.2	29 22.6	29 17.5	....	....
3	E.	N.	8	....	39 55.3	40 17.6	40 51.6	41 22.1	41 52.2	42 24.0	42 57.4	....	43 29.4	....	44 5.9
		S.	8	....	51 17.7	50 36.9	49 50.7	49 10.9	48 32.4	47 51.8	47 11.9	....	46 34.3	....	45 56.9
	W.	S.	9	....	36 8.3	36 50.0	37 32.2	38 12.0	38 52.6	39 30.0	40 13.8	....	40 51.7	....	41 30.8
		N.	9	....	47 36.4	47 4.0	46 33.5	46 5.9	45 33.6	44 59.4	44 28.3	....	43 58.9	....	43 20.9
3	E.	N.	9	....	....	....	51 21.7	51 43.3	52 8.1	52 35.2	53 1.7	....	53 25.3	....	....
		S.	9	....	....	....	58 7.2	57 36.9	57 9.7	56 42.3	56 14.4	....	55 46.7	....	....
	W.	S.	11	....	....	....	6 52.0	7 19.4	7 49.0	8 15.4	8 44.9	....	9 12.7	....	....
		N.	11	....	....	....	13 37.3	13 12.5	12 48.5	12 23.5	11 55.9	....	11 32.8	....	....
4	E.	N.	22	....	....	....	48 56.8	49 22.2	49 49.0	....	50 48.8	51 2.6	51 16.2	....	....
		S.	22	....	....	....	56 44.6	56 12.3	55 38.6	....	54 31.2	54 15.8	54 0.5	....	....
	W.	S.	23	....	....	....	54 22.9	54 56.0	55 30.0	....	56 37.2	56 52.3	57 7.0	....	....
		N.	0	....	....	....	2 11.7	1 47.0	1 19.7	....	0 21.3	0 7.4	59 52.7	....	....
5	E.	S.	17 58 32.4	....	59 32.1	0 4.3	0 37.3	1 6.7	1 39.5	2 12.0	2 47.6	....	3 19.6	....	3 53.5
		N.	18 12 34.6	....	10 56.4	10 9.0	9 23.6	8 44.4	7 59.6	7 20.0	6 40.7	....	6 3.0	....	5 27.5
	W.	N.	18 53 18.6	....	54 57.9	55 43.9	56 31.0	57 10.1	57 52.7	58 33.0	59 11.6	....	59 49.7	....	0 26.1
		S.	19 7 22.7	....	6 21.9	5 49.9	5 17.3	4 47.5	4 13.4	3 41.1	3 7.5	....	2 35.0	....	2 0.2
5	E.	S.	23 44 30.5	45 1.5	45 34.3	45 49.1	46 5.1	46 22.8	46 38.7	46 53.5	47 10.4	47 26.1	47 43.8	....	....
		N.	23 53 3.1	52 28.2	51 53.4	51 35.9	51 18.6	51 0.9	50 43.5	50 26.6	50 8.3	49 52.0	49 36.2	....	....
	W.	N.	1 47 30.1	48 4.7	48 40.0	48 58.5	49 15.9	49 34.6	49 52.0	50 7.5	50 25.0	50 42.2	50 59.5	....	....
		S.	1 56 3.6	55 32.9	55 1.5	54 46.0	54 29.0	54 12.4	53 55.5	53 41.1	53 23.0	53 7.2	52 51.3	....	....
5	E.	N.	1	20 46.5	21 9.4	21 32.0	22 0.1	22 22.7	22 46.4	23 9.0	23 35.1	....	23 59.3	....	....
		S.	1	30 1.0	29 30.7	29 2.8	28 32.5	28 5.6	27 37.4	27 10.4	26 41.9	....	26 15.4	....	....
	W.	S.	2	37 36.8	38 7.0	38 35.6	39 6.2	39 33.1	40 0.4	40 28.7	40 56.3	....	41 22.4	....	....
		N.	2	46 54.6	46 31.0	46 6.9	45 42.8	45 19.0	44 54.9	44 30.4	44 5.0	....	43 40.8	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION. 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
38 Lyncis......	262.4	269.6	+1.175	+1.123	+37 17 18.01	+30.66	+37 17 48.67	T.	Fairly well defined.
	259.6	271.2							
	263.0	274.4	+1.219						Diffuse; fairly well defined.
	265.2	273.3							
38 Leonis Min..	262.8	272.8	+0.994	+0.826	38 30 36.74	+33.46	38 31 10.20	T.	Diffuse; unsteady at times.
	265.3	271.2							
	265.4	273.8	+0.750						Well defined.
	263.2	276.8							
τ Cygni.......	250.4	254.2	+0.425	+0.381	37 33 23.41	−35.00	37 32 48.41	B.	Faint; steady.
	251.0	254.0							
	261.0	265.2	+0.381						Good seeing; image little diffuse.
	263.0	264.9							
1 Lacertæ.....	252.8	256.4	+0.481	+0.367	37 10 36.63	−37.34	37 9 59.29	B.	Faint; steady.
	252.8	256.9							
	267.4	268.4	+0.300						Tolerable seeing; image diffuse.
	267.2	271.0							
10 Lacertæ.....	260.1	261.9	+0.413	+0.392	38 27 7.55	−37.94	38 26 29.61	B.	Good seeing.
	260.0	264.8							
	264.0	268.8	+0.413						Tolerable seeing; image diffuse.
	266.7	268.5							
32 Andromedæ .	271.6	271.7	+0.519	+0.456	38 49 32.17	−33.67	38 48 58.50	B.	A good deal diffuse at times; steady.
	268.2	276.4							
	268.7	276.4	+0.444						Tolerable seeing; image diffuse.
	273.4	272.8							
μ Andromedæ .	267.5	271.7	+0.388	+0.379	37 52 24.28	−32.24	37 51 52.04	B.	Tolerable seeing; much diffuse; transits over threads B to VIII.
	269.2	271.2							
	276.6	276.8	+0.419						Tolerable seeing; a good deal diffuse.
	274.4	280.9							
59 Andromedæ .	274.5	274.6	+0.481	+0.510	38 29 36.74	−24.76	38 29 11.98	B.	Fair seeing.
	272.0	279.6							
	272.8	282.8	+0.600						Fair seeing.
	278.1	277.7							
B. A. C. 662 ..	274.5	274.6	+0.481	+0.510	38 29 50.86	−24.76	38 29 26.10	B.	Fair seeing.
	272.0	279.6							
	272.8	282.8	+0.600						Fair seeing.
	278.1	277.7							
38 Lyncis......	282.8	292.8	+0.806	+0.931	37 17 17.61	+30.95	37 17 48.56	T.	Tolerable seeing.
	285.6	288.5							
	281.6	292.4	+1.200						Poor seeing.
	282.4	290.8							
Lalande 18362	282.8	286.4	+0.700	+0.775	38 40 26.78	+31.46	38 40 58.24	T.	Not quite steady; diffuse.
	281.8	289.4							
	281.2	290.8	+0.950						Poor seeing; diffuse; not steady.
	283.2	288.8							
38 Leonis Min..	279.2	292.6	+1.300	+1.023	38 30 36.55	+33.99	38 31 10.54	T.	Not good seeing.
	282.8	290.2							
	281.6	290.8	+0.881						Light clouds.
	284.5	289.4							
14 Andromedæ .	253.7	261.3	+0.988	+0.957	38 36 14.34	−37.30	38 35 37.04	T.	Good image.
	253.9	262.1							
	257.2	265.2	+1.019						Clouds.
	257.1	265.4							
α Lyræ........	234.8	245.2	+1.213	+1.082	38 40 50.35	−18.41	38 40 31.94	T.	Good seeing.
	230.4	238.4							
	224.3	228.7	+1.019						Good seeing.
	217.4	229.3							
μ Andromedæ .	228.1	236.1	+0.881	+0.801	37 52 23.40	−32.36	37 51 51.04	B.	Very steady; good image; transits over threads A to IX.
	230.1	236.2							
	240.7	246.1	+0.788						Very good seeing.
	240.6	247.8							
59 Andromedæ .	238.6	243.7	+0.806	+0.733	+38 29 36.40	−24.99	+38 29 11.41	B.	Good seeing.
	238.9	246.7							
	240.0	249.2	+0.719						Good seeing.
	243.4	245.7							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Dec. 5	E.	N.	1	20 55.0	21 20.6	21 44.7	22 8.8	22 34.0	22 56.7	23 20.3	23 47.2	......	24 12.7	......	......
		S.	1	30 13.4	29 44.4	29 16.0	28 44.5	28 18.1	27 51.0	27 22.5	26 53.9	......	26 28.6	......	......
	W.	S.	2	37 24.6	37 55.6	38 23.7	38 54.0	39 22.3	39 48.8	40 16.5	40 46.0	......	41 12.0	......	......
		N.	2	46 46.1	46 21.7	45 58.4	45 33.8	45 10.1	44 45.2	44 20.7	43 55.3	......	43 30.0	......	......
6	E.	N.	17 58 20.1	58 50.4	59 20.9	59 53.0	0 23.2	0 54.1	1 26.0	1 56.6	2 29.6	......	3 2.5	......	3 38.3
		S.	18 12 51.4	11 58.7	11 10.4	10 25.6	9 40.2	8 58.0	8 19.1	7 36.8	6 56.4	......	6 17.0	......	5 39.0
	W.	S.	18 53 1.2	53 51.3	54 40.4	55 25.3	56 12.8	56 51.2	57 31.3	58 13.2	58 51.9	......	59 31.0	......	0 10.6
		N.	19 7 30.5	6 58.8	6 29.4	5 59.1	5 29.9	4 56.6	4 26.2	3 54.0	3 18.8	......	2 46.7	......	2 11.1
6	E.	N.	19 56 52.7	57 7.0	57 21.1	57 34.5	57 49.0	58 2.3	58 16.6	58 30.6	58 44.9	......	......	......	......
		S.	20 2 28.3	2 13.2	1 57.9	1 43.3	1 28.1	1 14.0	0 59.3	0 45.0	0 30.2	......	......	......	......
	W.	S.	22 17 43.8	17 58.9	18 13.5	18 28.2	18 44.2	18 58.3	19 12.5	19 26.8	19 41.6	......	......	......	......
		N.	22 23 18.9	23 4.6	22 49.9	22 36.6	22 21.9	22 8.3	21 54.6	21 40.5	21 26.4	......	......	......	......
6	E.	S.	20 48 44.5	48 56.5	49 9.4	49 21.9	49 35.5	49 46.9	49 59.8	50 12.5	50 25.5	......	......	......	......
		N.	20 53 35.7	53 22.0	53 9.1	52 55.1	52 42.0	52 29.8	52 16.7	52 3.3	51 50.8	......	......	......	......
	W.	N.	23 28 7.5	28 20.9	28 32.8	28 46.8	29 1.0	29 12.9	29 25.6	29 38.5	29 51.5	......	......	......	......
		S.	23 32 59.0	32 45.8	32 33.7	32 20.7	32 8.0	31 56.2	31 43.2	31 30.6	31 18.1	......	......	......	......
6	E.	N.	21	49 8.2	49 32.6	49 53.4	50 17.4	50 40.7	51 3.7	51 27.4	51 51.7	......	52 14.9	......	......
		S.	21	58 1.9	57 32.4	57 7.0	56 38.3	56 12.6	55 45.6	55 19.3	54 53.2	......	54 27.7	......	......
	W.	S.	23	9 58.2	10 26.0	10 53.7	11 21.7	11 48.1	12 14.5	12 40.7	13 6.8	......	13 31.7	......	......
		N.	23	18 50.5	18 28.5	18 6.4	17 42.8	17 18.5	16 56.1	16 32.4	16 7.6	......	15 44.7	......	......
6	E.	N.	22	......	......	......	48 54.3	49 21.0	49 48.4	50 15.9	50 45.5	51 0.5	51 14.3	51 30.4	51 45.2
		S.	22	......	......	......	56 44.2	56 9.6	55 36.6	55 2.8	54 30.0	54 13.8	53 58.8	53 42.2	53 25.8
	W.	S.	23	......	......	......	54 21.9	54 55.9	55 26.8	56 2.1	56 33.7	56 52.1	57 5.6	57 22.9	57 39.4
		N.	0	......	......	......	2 11.0	1 42.1	1 14.9	0 46.9	0 17.2	0 4.0	59 48.3	59 33.0	59 16.2
6	E.	N.	0	......	......	......	......	......	13 37.9	14 25.1	15 18.2	15 45.2	16 10.3	16 36.5	17 10.9
		S.	0	......	......	......	......	......	26 42.9	24 47.8	23 8.6	22 28.6	21 50.8	21 8.3	20 31.7
	W.	S.	0	......	......	......	......	......	42 48.7	44 44.1	46 20.9	47 2.9	47 39.9	48 22.0	48 59.2
		N.	0	......	......	......	......	......	55 51.5	55 6.9	54 15.1	53 48.9	53 21.7	52 54.7	52 23.6
6	E.	N.	23	......	......	......	46 36.2	46 51.5	47 7.0	47 23.3	47 40.0	47 47.9	47 56.4	48 4.9	......
		S.	23	......	......	......	50 43.9	50 28.1	50 12.3	49 55.3	49 38.8	49 30.4	49 22.9	49 14.1	......
	W.	S.	1	......	......	......	49 48.2	50 4.3	50 19.3	50 37.7	50 54.8	51 2.4	51 10.3	51 19.1	......
		N.	1	......	......	......	53 56.6	53 41.0	53 25.9	53 9.0	52 53.0	52 44.4	52 36.8	52 28.4	
6	E.	N.	1 20 19.5	20 43.7	21 6.6	21 31.3	21 55.5	22 19.3	22 41.9	23 7.7	23 33.1	......	......	......	......
		S.	1 30 35.4	30 5.7	29 32.9	29 4.1	28 33.8	28 5.8	27 39.1	27 10.5	26 43.3	......	......	......	......
	W.	S.	2 37 3.4	37 34.0	38 4.0	38 33.3	39 3.2	39 29.5	39 58.3	40 26.0	40 54.1	......	......	......	......
		N.	2 47 17.3	46 53.3	46 29.5	46 6.9	45 44.1	45 18.2	44 55.1	44 28.5	44 2.7	......	......	......	......
6	E.	N.	1 20 30.6	20 53.0	21 18.4	21 40.4	22 5.7	22 29.7	22 54.5	23 20.3	23 43.9	......	......	......	......
		S.	1 30 50.4	30 17.5	29 45.9	29 18.9	28 46.3	28 17.9	27 50.2	27 24.5	26 55.8	......	......	......	......
	W.	S.	2 36 50.6	37 22.9	37 52.0	38 21.2	38 50.7	39 19.6	39 46.9	40 14.9	40 44.6	......	......	......	......
		N.	2 47 9.6	46 43.5	46 21.5	45 58.3	45 34.0	45 8.7	44 45.7	44 19.3	43 54.2	......	......	......	......
6	E.	N.	2	......	10 46.4	11 6.0	11 27.9	11 51.0	12 12.3	12 35.1	12 56.7	......	13 22.2	......	......
		S.	2	......	18 16.7	17 50.5	17 24.7	16 59.4	16 34.8	16 11.4	15 46.9	......	15 24.1	......	......
	W.	S.	3	......	37 8.2	37 32.0	38 0.4	38 26.3	38 48.7	39 14.5	39 38.0	......	40 2.6	......	......
		N.	3	......	44 37.8	44 16.5	43 55.5	43 33.1	43 11.5	42 50.2	42 27.7	......	42 4.3	......	......
9	E.	S.	8	......	......	......	40 48.8	41 17.7	41 50.6	42 23.3	42 57.4	43 11.0	43 27.3	43 44.7	......
		N.	8	......	......	......	49 40.7	49 1.5	48 18.9	47 40.8	47 2.0	46 42.9	46 23.3	46 4.7	......
	W.	N.	9	......	......	......	37 31.0	38 8.3	38 48.0	39 32.0	40 12.4	40 28.4	40 46.9	41 5.9	......
		S.	9	......	......	......	46 21.6	45 52.1	45 20.0	44 46.6	44 15.5	44 0.4	43 40.9	43 25.6	......
9	E.	N.	7 59 5.7	59 17.0	59 28.5	59 40.2	59 52.0	0 3.7	0 15.1	0 26.9	0 38.5	......	......	......	......
		S.	8 3 39.3	3 27.0	3 14.9	3 2.8	2 50.7	2 38.8	2 27.3	2 16.0	2 3.3	......	......	......	......
	W.	S.	10 50 19.9	50 32.0	50 44.6	50 57.5	51 10.2	51 21.5	51 33.9	51 46.3	51 58.3	......	......	......	......
		N.	10 54 54.5	54 42.6	54 31.5	54 19.9	54 7.9	53 56.9	53 44.5	53 33.9	53 21.9	......	......	......	......
9	E.	N.	9 0 47.1	1 11.9	1 37.8	1 50.9	2 4.4	2 16.0	2 29.7	2 43.4	2 55.0	3 7.9	3 21.6	......	......
		S.	9 7 35.7	7 9.3	6 43.0	6 28.4	6 15.1	6 1.0	5 47.5	5 35.2	5 22.3	5 8.5	4 54.7	......	......
	W.	S.	11 34 27.0	34 55.0	35 23.3	35 36.4	35 50.4	36 3.5	36 18.0	36 31.4	36 44.4	36 57.1	37 10.8	......	......
		N.	11 41 19.1	40 53.7	40 28.5	40 15.3	40 1.7	39 49.3	39 35.7	39 24.0	39 10.8	38 57.7	38 45.3	......	......
9	E.	S.	9	......	......	......	51 16.6	51 40.6	52 6.0	52 32.2	52 58.3	53 10.3	53 22.7	53 35.4	53 48.1
		N.	9	......	......	......	57 56.7	57 28.5	56 59.9	56 31.7	56 3.3	55 50.5	55 36.5	55 21.5	55 8.9
	W.	N.	11	......	......	......	6 45.6	7 14.6	7 43.6	8 11.0	8 40.0	8 53.0	9 6.5	9 20.0	9 34.3
		S.	11	......	......	......	13 27.4	13 3.4	12 36.3	12 10.5	11 45.5	11 32.1	11 20.3	11 7.7	10 53.5
10	E.	N.	17 58 14.7	58 45.3	59 13.7	59 45.0	0 17.0	0 47.5	1 18.7	......	2 24.8	......	......	......	3 33.1
		S.	18 12 47.8	11 56.5	11 7.9	10 22.2	9 37.6	8 55.0	8 14.6	......	6 53.7	......	......	......	5 35.9
	W.	S.	18 52 54.7	53 44.4	54 33.1	55 14.9	56 2.9	56 43.8	57 24.9	......	58 47.4	......	......	......	0 4.5
		N.	19 7 27.6	6 57.6	6 26.0	5 56.5	5 23.8	4 54.3	4 22.8	......	3 17.9	......	......	......	2 7.5

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
B. A. C. 662 ..	238.6	243.7	+0.806	+0.733	+38 29 50.08	−24.99	+38 29 25.09	B.	Good seeing.
	238.9	246.7							
	240.0	249.2	+0.719						Good seeing.
	243.4	245.7							
α Lyræ........	240.9	245.2	+0.513	+0.661	38 40 50.36	−18.11	38 40 32.25	B.	Poor image; unsteady.
	238.8	242.7							
	235.1	241.7	+0.856						Poor image; unsteady.
	234.1	241.2							
τ Cygni	234.4	241.6	+0.738	+0.615	37 33 22.20	−34.50	37 32 47.70	T.	Good seeing; faint; well defined.
	235.0	239.6							
	246.8	249.6	+0.550						Good seeing; slightly diffuse, steady.
	246.1	252.1							
1 Lacertæ.....	236.4	241.2	+0.750	+0.605	37 10 36.55	−37.04	37 9 59.51	T.	Faint; good image.
	235.6	242.8							
	250.8	254.8	+0.525						Good image.
	250.8	255.2							
10 Lacertæ	242.8	248.5	+0.506	+0.524	38 27 7.27	−37.72	38 26 29.55	T.	Good image.
	246.5	248.9							
	249.9	254.1	+0.588						Good seeing.
	250.0	255.2							
14 Andromedæ .	248.3	252.3	+0.381	+0.409	38 36 14.29	−37.24	38 35 37.05	T.	Good seeing; slightly diffuse.
	250.7	252.8							
	252.8	256.4	+0.475						Good seeing.
	253.2	257.2							
32 Andromedæ .	254.4	255.9	+0.331	+0.189	38 49 32.30	−33.81	38 48 58.49	T.	Fair image; slightly diffuse; not quite steady.
	254.7	258.5							
	254.7	255.2	+0.063						Not steady; slightly diffuse.
	258.0	258.5							
μ Andromedæ .	251.5	255.0	+0.344	+0.329	37 52 24.53	−32.40	37 51 52.13	T.	Good seeing.
	253.2	255.2							
	257.8	261.3	+0.350						Good seeing.
	259.1	261.2							
59 Andromedæ .	258.6	258.6	+0.175	+0.264	38 29 36.59	−25.07	38 29 11.52	T.	Slightly diffuse; not quite steady.
	258.2	261.0							
	260.8	265.6	+0.381						Diffuse and unsteady.
	263.9	265.2							
B. A. C. 662 ..	258.6	258.6	+0.175	+0.264	38 29 50.15	−25.08	38 29 25.07	T.	Slightly diffuse; not quite steady.
	258.2	261.0							
	260.8	265.6	+0.381						Diffuse and unsteady.
	263.9	265.2							
ρ Persei	261.4	260.9	+0.194	+0.220	38 23 27.53	−18.02	38 23 9.51	T.	Diffuse.
	261.0	264.6							
	266.2	270.8	+0.269						Diffuse.
	269.3	269.0							
Lalande 18362	291.2	281.0	−1.925	−1.823	38 40 25.33	+31.87	38 40 57.20	B.	Good seeing.
	296.5	275.9							
	297.7	275.2	−1.956						Good seeing.
	291.2	282.4							
10 Leonis Min..	296.2	279.1	−1.456	−1.608	36 54 26.03	+32.12	36 54 58.15	B.	Good seeing.
	290.3	284.1							
	294.3	282.0	−2.025						Fair seeing; image rather diffuse at times.
	298.4	278.3							
31 Leonis Min..	296.3	276.3	−1.813	−1.777	37 17 47.47	+34.25	37 18 21.72	B.	Fair seeing; image a little flaring at times; transits over threads A to IX.
	291.1	282.1							
	294.9	282.8	−2.019						Tolerable seeing; image poor.
	299.3	279.1							
38 Leonis Min..	292.0	281.6	−1.913	−1.831	38 30 34.99	+34.78	38 31 9.77	B.	Good seeing.
	296.8	276.6							
	299.0	277.5	−1.994						Tolerable seeing; image diffuse; unsteady at times
	293.9	283.5							
α Lyræ........	258.8	250.4	−0.575	−0.456	+38 40 49.26	−17.02	+38 40 32.24	T.	Good seeing.
	250.4	249.6							
	245.2	243.2	−0.375						Unsteady.
	243.2	239.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Dec. 10	E.	N.	21	49 4.0	49 26.0	49 49.6	50 14.0	50 36.3	50 59.0	51 23.0	51 47.2	....	52 10.5	....	....
		S.	21	57 57.6	57 28.5	57 2.0	56 34.7	56 7.2	55 42.1	55 14.7	54 48.7	....	54 24.4	....	....
	W.	S.	23	9 55.8	10 21.9	10 49.0	11 17.7	11 44.8	12 10.4	12 37.0	13 2.3	....	13 29.3	....	....
		N.	23	18 45.3	18 22.0	17 58.4	17 35.8	17 12.6	16 48.3	16 24.8	16 0.9	....	15 38.0	....	....
10	E.	N.	23 45 27.6	45 43.5	45 59.6	46 15.4	46 31.6	46 46.5	47 2.8	47 19.0	47 35.7	....	....	....	....
		S.	23 51 50.5	51 33.0	51 15.5	50 58.6	50 41.2	50 24.9	50 8.3	49 50.3	49 34.0	....	....	....	....
	W.	S.	1 48 33.1	48 51.0	49 8.7	49 26.0	49 42.7	49 59.1	50 15.1	50 32.8	50 49.7	....	....	....	....
		N.	1 54 54.6	54 39.6	54 23.4	54 8.2	53 51.4	53 36.0	53 20.8	53 4.4	52 48.0	....	....	....	....
10	E.	N.	1	....	21 2.4	21 26.4	21 51.3	22 15.3	22 38.9	23 3.6	23 29.0	....	23 53.7	....	....
		S.	1	....	29 29.0	29 0.4	28 29.7	28 2.0	27 34.9	27 7.2	26 39.2	....	26 12.4	....	....
	W.	S.	2	....	37 58.1	38 27.6	38 58.0	39 25.9	39 53.4	40 21.4	40 50.2	....	41 16.6	....	....
		N.	2	....	46 24.4	46 2.1	45 36.6	45 12.3	44 48.3	44 24.4	43 58.7	....	43 34.9	....	....
10	E.	N.	1	....	21 13.7	21 37.6	22 2.8	22 26.3	22 50.0	23 16.3	23 41.0	....	24 4.7	....	....
		S.	1	....	29 42.0	29 14.0	28 43.2	28 14.7	27 47.4	27 19.4	26 51.0	....	26 25.0	....	....
	W.	S.	2	....	37 47.5	38 16.4	38 46.4	39 15.7	39 43.1	40 10.2	40 38.5	....	41 5.4	....	....
		N.	2	....	46 15.1	45 52.9	45 25.7	45 3.2	44 38.6	44 14.5	43 48.0	....	43 23.0	....	....
10	E.	N.	2 9 56.7	....	10 40.4	11 2.8	11 24.9	11 46.4	12 7.9	12 29.9	12 53.4	....	13 15.3	....	....
		S.	2 19 3.1	....	18 10.5	17 45.6	17 18.8	16 56.0	16 31.2	16 6.3	15 42.1	....	15 19.2	....	....
	W.	S.	3 36 12.0	....	37 2.8	37 29.4	37 57.0	38 20.7	38 44.0	39 8.9	39 32.0	....	39 57.8	....	....
		N.	3 45 17.6	....	44 34.3	44 12.4	43 49.7	43 28.8	43 6.0	42 44.7	42 21.1	....	41 59.5	....	....
10	E.	S.	8	....	....	....	....	41 18.9	41 51.1	42 23.2	42 56.3	43 12.7	43 29.7	43 45 9	44 2.4
		N.	8	....	....	....	....	48 56.3	48 15.6	47 36.6	46 57.3	46 39.5	46 21.4	46 3.7	45 45.3
	W.	N.	9	....	....	....	....	38 12.6	38 54.5	39 34.6	40 10.4	40 30.3	40 46.8	41 5.2	41 23.6
		S.	9	....	....	....	....	45 50.2	45 17.5	44 45.0	44 13.9	43 59.1	43 38.5	43 25.7	43 5.2
10	E.	N.	7 58 41.3	59 4.4	....	59 26.4	59 38.1	59 50.6	0 1.5	0 12.6	0 24.6	0 37.2	....	....	....
		S.	8 4 2.2	3 37.6	....	3 14.4	3 1.9	2 48.9	2 37.8	2 25.4	2 14.0	2 0.9	....	....	....
	W.	S.	10 49 55.2	50 20.2	....	50 44.5	50 56.2	51 8.1	51 20.5	51 32.3	51 44.3	51 55.7	....	....	....
		N.	10 55 16.9	54 54.0	....	54 30.7	54 19.4	54 7.2	53 55.8	53 43.9	53 32.8	53 20.5	....	....	....
10	E.	S.	9	....	50 26.6	50 51.5	51 17.4	51 40.0	52 5.7	52 31.9	52 56.8	....	53 22.4	....	53 48.6
		N.	9	....	58 56.4	58 23.5	57 53.6	57 24.9	56 55.2	56 27.0	56 0.3	....	55 31.8	....	55 3.7
	W.	N.	11	....	5 45.3	6 16.9	6 47.5	7 16.1	7 45.3	8 13.0	8 39.1	....	9 8.5	....	9 34.9
		S.	11	....	14 14.5	13 49.0	13 24.9	13 0.3	12 35.1	12 11.7	11 46.5	....	11 18.0	....	10 53.0
11	E.	N.	17	....	59 17.5	59 44.2	0 10.5	0 45.9	1 16.3	1 51.0	2 24.6	....	2 56.0	....	3 31.4
		S.	18	....	11 4.2	10 20.4	9 34.6	8 51.7	8 11.0	7 30.2	6 50.1	....	6 12.6	....	5 32.8
	W.	S.	18	....	54 34.5	55 18.7	56 5.0	56 46.0	57 27.1	58 7.4	58 48.9	....	59 26.9	....	0 6.0
		N.	19	....	6 26.2	5 56.1	5 23.3	4 52.2	4 22.0	3 49.2	3 15.0	....	2 43.3	....	2 5.3
11	E.	N.	20 48 35.9	48 47.9	49 0.1	49 12.9	49 25.7	49 38.3	49 50.0	50 2.9	50 15.5	....	....	....	....
		S.	20 53 32.5	53 19.9	53 5.8	52 53.0	52 39.2	52 27.1	52 14.6	52 1.4	51 48.2	....	....	....	....
	W.	S.	23 27 59.5	28 12.6	28 25.8	28 38.7	28 51.7	29 4.2	29 17.0	29 30.2	29 42.6	....	....	....	....
		N.	23 32 55.5	32 42.9	32 29.5	32 17.1	32 4.2	31 52.7	31 40.4	31 28.0	31 14.9	....	....	....	....
11	E.	S.	21	....	49 29.7	49 54.5	50 18.6	50 40.2	....	51 27.6	51 52.2	....	52 15.8	....	....
		N.	21	....	57 22.5	56 53.8	56 25.3	56 0.9	....	55 5.8	54 40.9	....	54 14.7	....	....
	W.	N.	23	....	10 24.2	10 53.9	11 21.6	11 47.9	....	12 41.1	13 6.6	....	13 31.4	....	....
		S.	23	....	18 18.9	17 55.2	17 30.3	17 8.6	....	16 20.4	15 56.9	....	15 32.9	....	....
11	E.	N.	22	....	....	....	....	49 15.0	49 40.7	50 9.8	50 38.7	50 54.9	51 7.6	51 23.5	51 38.7
		S.	22	....	....	....	....	56 4.9	55 30.0	54 58.7	54 23.0	54 6.9	53 53.0	53 35.8	53 19.1
	W.	S.	23	....	....	....	....	54 47.5	55 20.2	55 54.6	56 28.8	56 43.2	56 59.9	57 16.4	57 32.9
		N.	0	....	....	....	....	1 38.1	1 9.8	0 41.9	0 11.8	59 57.7	59 43.3	59 28.0	59 11.7
11	E.	N.	0	....	....	....	....	12 45.9	13 31.2	14 21.6	15 11.5	15 38.1	16 6.5	16 33.9	....
		S.	0	....	....	....	....	29 0.9	26 33.1	24 40.8	23 2.9	22 23.7	21 42.9	21 1.8	....
	W	S.	0	....	....	....	....	40 20.4	42 50.8	44 40.1	46 12.9	46 59.2	47 33.8	48 17.0	....
		N.	0	....	....	....	....	56 35.9	55 49.1	55 3.8	54 6.9	53 43.9	53 16.9	52 47.9	....
11	E.	N.	23	....	....	46 13.9	46 30.2	46 45.1	47 1.7	47 16.7	47 34.5	....	47 49.7	....	....
		S.	23	....	....	50 57.7	50 39.2	50 23.5	50 6.6	49 50.2	49 32.4	....	49 17.7	....	....
	W.	S.	1	....	....	49 24.6	49 42.4	49 58.9	50 16.0	50 31.6	50 49.0	....	51 4.9	....	....
		N.	1	....	....	54 6.9	53 49.3	53 34.8	53 19.3	53 3.3	52 46.7	....	52 31.5	....	....
11	E.	N.	1	20 37.5	21 1.9	21 24.5	21 50.5	22 14.3	22 37.4	23 1.7	23 28.1	....	....	....	....
		S.	1	29 57.1	29 27.9	28 59.9	28 28.7	28 1.6	27 34.8	27 6.1	26 38.0	....	....	....	....
	W.	S.	2	37 28.7	37 57.5	38 26.7	38 57.3	39 25.2	39 52.9	40 20.5	40 47.3	....	....	....	....
		N.	2	46 47.6	46 24.2	46 0.3	45 34.1	45 11.5	44 48.0	44 22.9	43 57.8	....	....	....	....
11	E.	N.	1 20 23.0	20 48.0	21 12.1	21 37.4	22 1.3	22 25.0	22 48.1	23 13.6	23 39.5	....	....	....	....
		S.	1 30 42.5	30 7.9	29 40.3	29 14.5	28 40.9	28 14.8	27 47.7	27 18.8	26 49.4	....	....	....	....
	W.	S.	2 36 43.5	37 16.7	37 47.0	38 14.9	38 45.9	39 13.8	39 41.5	40 9.7	40 36.8	....	....	....	....
		N.	2 47 2.3	46 38.7	46 15.1	45 50.8	45 25.3	45 0.3	44 38.3	44 13.0	43 48.1	....	....	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ′ "	"	° ′ "		
10 Lacertæ	240.4	240.9	−0.219	−0.096	+38 27 7.30	−37.38	+38 26 29.92	B.	Light clouds; steady and well defined.
	245.1	241.1							
	248.9	248.0	+0.019						Steady; image diffuse.
	247.6	248.8							
μ Andromedæ .	247.9	248.2	−0.156	−0.128	37 52 24.40	−32.48	37 51 51.92	B.	Image much diffuse.
	249.7	246.9							
	255.9	253.6	−0.113						Tolerable image; high-power eyepiece.
	255.3	255.8							
59 Andromedæ .	253.4	252.9	−0.181	−0.093	38 29 36.64	−25.31	38 29 11.33	B.	Fair seeing; high-power eyepiece.
	255.3	252.9							
	258.0	257.2	−0.013						Tolerable seeing.
	258.7	259.3							
B. A. C. 662 ..	253.4	252.9	−0.181	−0.093	38 29 50.63	−25.32	38 29 25.31	B.	Fair seeing; high-power eyepiece.
	255.3	252.9							
	258.0	257.2	−0.013						Tolerable seeing.
	258.7	259.3							
ρ Persei	256.1	256.0	−0.150	−0.086	38 23 27.28	−18.33	38 23 8.95	B.	Much diffuse; high-power eyepiece.
	258.1	255.8							
	260.9	261.2	−0.031						Tolerable image.
	262.2	261.4							
Lalande 18362	274.6	272.2	−0.250	−0.210	38 40 26.57	+31.88	38 40 58.45	T.	Faint and diffuse.
	274.8	273.2							
	276.7	273.2	−0.194						Very unsteady.
	274.8	275.2							
10 Leonis Min ..	270.9	273.2	+0.138	−0.052	36 54 26.59	+32.23	36 54 58.82	T.	Diffuse; transits over threads B to IX.
	272.6	272.5							
	277.6	277.2	−0.250						Unsteady.
	278.8	275.2							
38 Leonis Min ..	275.6	274.2	−0.281	−0.265	38 30 35.36	+34.93	38 31 10.29	T.	Faint; unsteady; diffuse.
	276.5	273.4							
	278.8	275.3	−0.281						Unsteady; diffuse.
	278.6	277.6							
α Lyræ	252.2	252.4	+0.288	+0.264	38 40 48.95	−16.77	38 40 32.18	B.	Very unsteady; poor image.
	249.1	253.5							
	244.8	249.0	+0.263						Poor image; unsteady; light clouds.
	244.8	244.8							
1 Lacertæ	239.9	244.1	+0.319	+0.370	37 10 36.10	−36.54	37 9 59.56	T.	Very faint indeed.
	241.6	242.5							
	254.8	258.4	+0.463						Good seeing.
	252.8	256.6							
10 Lacertæ	245.6	246.4	+0.338	+0.317	38 27 7.21	−37.31	38 26 29.90	T.	Good seeing; faint.
	245.6	250.2							
	253.2	254.8	+0.325						Good seeing.
	253.2	256.8							
14 Andromedæ .	250.4	254.0	+0.325	+0.341	38 36 14.06	−37.05	38 35 37.01	T.	Good seeing.
	252.8	254.4							
	253.4	257.0	+0.388						Good seeing.
	254.2	256.8							
32 Andromedæ .	262.2	256.8	0.088	+0.096	38 49 32.02	−33.88	38 48 58.14	T.	Good seeing.
	254.4	258.4							
	255.0	258.8	+0.288						Unsteady.
	258.4	259.2							
μ Andromedæ .	253.0	257.0	+0.375	+0.341	37 52 24.35	−32.51	37 51 51.84	T.	Good seeing.
	254.4	256.4							
	258.6	261.4	+0.344						Diffuse; unsteady; bright moonlight.
	259.9	262.6							
59 Andromedæ .	258.5	261.2	+0.394	+0.297	38 29 37.11	−25.38	38 29 11.73	T.	Faint; diffuse; bright moonlight.
	258.0	261.6							
	263.2	266.0	+0.231						Diffuse; not steady.
	265.9	266.8							
B. A. C. 662 ..	258.5	261.2	+0.394	+0.297	+38 29 50.81	−25.38	+38 29 25.43	T.	Ill defined.
	258.0	261.6							
	263.2	266.0	+0.231						Ill defined.
	265.9	266.8							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Dec. 11	E.	N.	2	....	10 40.5	11 2.7	11 23.9	11 45.2	12 7.3	12 28.3	12 51.5	....	13 14.0	....	13 37.5
		S.	2	....	18 9.6	17 44.9	17 18.1	16 55.0	16 29.7	16 6.3	15 42.2	....	15 17.7	....	14 52.7
	W.	S.	3	....	37 2.8	37 28.7	37 55.0	38 17.6	38 42.1	39 8.0	39 31.1	....	39 54.8	....	40 20.7
		N.	3	....	44 33.4	44 13.0	43 48.7	43 27.9	43 7.4	42 43.0	42 21.9	....	41 59.5	....	41 34.2
12	E.	N.	18	....	....	....	....	....	1 15.0	1 47.9	2 22.4	2 38.4	2 55.0	3 11.8	3 30.9
		S.	18	....	....	....	....	....	8 7.7	7 27.4	6 46.4	6 27.0	6 9.5	5 49.6	5 30.0
	W.	S.	18	....	....	....	....	....	57 28.8	58 8.0	58 49.1	59 6.6	59 26.9	59 47.3	0 6.1
		N.	19	....	....	....	....	....	4 21.4	3 48.7	3 13.3	2 57.8	2 40.9	2 23.0	2 4.6
12	E.	N.	19	56 59.5	57 13.3	57 26.5	57 41.7	57 54.9	58 8.3	....	....	....	....	....	....
		S.	20	2 5.3	1 50.8	1 35.3	1 21.2	1 6.8	0 51.7	....	....	....	....	....	....
	W.	S.	22	17 52.7	18 7.4	18 22.2	18 37.5	18 51.8	19 5.9	....	....	....	....	....	....
		N.	22	22 57.2	22 42.8	22 29.2	22 15.1	22 1.4	21 47.8	....	....	....	....	....	....
12	E.	N.	22	....	....	....	....	49 12.9	49 39.8	....	50 39.0	50 54.0	51 7.0	51 22.6	51 39.3
		S.	22	....	....	....	....	56 2.6	55 29.4	....	54 20.9	54 6.8	53 50.6	53 34.3	53 17.3
	W.	S.	23	....	....	....	....	54 43.3	55 18.7	....	56 26.4	56 44.3	57 1.6	57 16.0	57 32.5
		N.	0	....	....	....	....	1 37.3	1 8.5	....	0 10.5	59 56.3	59 41.7	59 25.9	59 9.0
12	E.	N.	0	....	....	....	....	....	....	14 20.0	....	15 36.2	16 0.7	16 28.9	17 3.3
		S.	0	....	....	....	....	....	....	24 38.7	....	22 21.0	21 40.5	21 3.3	20 28.2
	W.	S.	0	....	....	....	....	....	....	44 43.2	....	46 56.0	47 37.4	48 15.9	48 55.1
		N.	0	....	....	....	....	....	....	54 58.4	....	53 42.2	53 15.2	52 44.9	52 14.7
12	E.	N.	1	20 38.0	21 1.3	21 25.0	21 49.2	22 10.9	22 35.5	....	23 26.7	....	23 51.3	....	....
		S.	1	29 55.0	29 26.7	28 57.2	28 27.1	27 59.6	27 32.0	....	26 35.4	....	26 10.0	....	....
	W.	S.	2	37 26.0	37 57.2	38 25.0	38 55.8	39 24.1	39 51.9	....	40 45.9	....	41 13.6	....	....
		N.	2	46 46.0	46 22.9	45 59.8	45 33.4	45 11.0	44 47.5	....	43 56.7	....	43 32.1	....	....
12	E.	S.	2	10 20.3	10 41.6	....	11 27.3	11 46.4	12 10.6	12 33.2	12 56.5	....	13 17.9	....	....
		N.	2	18 32.7	18 4.0	....	17 11.8	16 50.0	16 23.1	15 57.7	15 35.0	....	15 12.3	....	....
	W.	N.	3	36 37.4	37 4.0	....	37 56.3	38 20.3	38 46.6	39 12.7	39 35.9	....	40 0.8	....	....
		S.	3	44 52.2	44 29.5	....	43 44.0	43 23.9	43 0.4	42 37.3	42 14.8	....	41 51.9	....	....
13	E.	S.	17	....	59 20.9	59 51.7	0 23.6	0 53.3	1 27.3	2 0.2	2 33.4	....	3 5.8	....	....
		N.	18	....	10 45.4	9 55.3	9 11.7	8 32.0	7 48.4	7 10.0	6 29.3	....	5 54.3	....	....
	W.	N.	18	....	54 47.9	55 35.7	56 20.6	57 0.5	57 43.4	58 22.2	59 3.2	....	59 40.7	....	....
		S.	19	....	6 13.3	5 40.9	5 9.6	4 39.3	4 6.3	3 33.6	3 0.6	....	2 27.3	....	....
17	E.	S.	0	....	....	....	....	....	....	14 22.2	15 16.0	15 37.0	16 0.8	16 34.2	17 3.0
		N.	0	....	....	....	....	....	....	24 6.0	22 37.8	21 58.8	21 23.0	20 44.4	20 8.5
	W.	N.	0	....	....	....	....	....	....	44 53.2	46 23.5	47 8.0	47 44.2	48 20.4	48 57.2
		S.	0	....	....	....	....	....	....	54 42.2	53 52.4	53 28.8	53 1.9	52 33.8	52 0.5
21	E.	N.	17 56 5.2	57 2.6	58 0.9	58 31.2	59 1.1	59 32.3	0 3.3	0 33.4	....	....	....	3 1.1	....
		S.	18 16 4.0	14 6.4	12 23.1	11 33.8	10 45.8	10 1.9	9 15.0	8 33.7	....	....	....	5 35.8	....
	W.	S.	18 49 8.0	51 6.6	52 50.6	53 40.1	54 28.7	55 13.4	55 56.9	56 41.1	....	....	....	59 38.6	....
		N.	19 9 10.8	8 13.8	7 14.9	6 44.2	6 14.0	5 45.4	5 11.9	4 42.8	....	....	....	2 14.5	....
21	E.	S.	0	....	....	....	....	12 42.8	13 29.8	14 22.2	15 12.0	15 37.8	16 4.3	16 30.6	16 57.4
		N.	0	....	....	....	....	28 17.4	25 54.0	23 59.0	22 32.5	21 52.8	21 16.0	20 39.6	20 4.3
	W.	N.	0	....	....	....	....	40 32.2	42 59.6	44 49.0	46 21.9	46 57.0	47 40.0	48 14.4	48 49.7
		S.	0	....	....	....	....	56 16.4	55 25.4	54 36.5	53 45.3	53 19.4	52 50.8	52 24.5	51 56.6
21	E.	N.	23 45 14.6	45 30.7	45 47.1	46 1.9	46 18.6	46 34.5	46 50.0	47 5.4	47 21.8	....	47 37.8	....	....
		S.	23 51 36.4	51 18.6	51 1.4	50 45.1	50 27.5	50 10.9	49 54.4	49 38.0	49 20.7	....	49 5.4	....	....
	W.	S.	1 48 20.1	48 37.6	48 54.4	49 11.5	49 29.8	49 46.3	50 3.0	50 19.0	50 35.8	....	50 51.5	....	....
		N.	1 54 42.0	54 25.9	54 9.9	53 54.4	53 38.2	53 22.5	53 7.4	52 51.6	52 34.3	....	52 19.6	....	....
21	E.	N.	1	20 28.0	20 51.1	21 15.4	21 41.6	22 2.1	22 27.1	22 52.2	23 18.0	....	23 42.8	....	....
		S.	1	29 45.1	29 15.1	28 46.5	28 17.1	27 50.1	27 20.8	26 52.8	26 25.9	....	26 0.3	....	....
	W.	S.	2	37 14.8	37 44.0	38 13.7	38 44.9	39 13.0	39 39.7	40 6.0	40 34.9	....	41 2.7	....	....
		N.	2	46 35.6	46 11.0	45 48.3	45 23.6	44 59.4	44 36.0	44 10.4	43 44.7	....	43 20.1	....	....
21	E.	N.	1	20 37.9	21 2.1	21 26.0	21 51.3	22 15.9	22 39.9	23 3.4	23 28.8	....	23 54.6	....	....
		S.	1	30 1.0	29 27.9	28 59.8	28 29.7	28 1.4	27 33.0	27 5.5	26 37.9	....	26 13.0	....	....
	W.	S.	2	37 3.9	37 33.1	38 3.3	38 33.8	39 1.2	39 29.1	39 56.4	40 24.0	....	40 53.6	....	....
		N.	2	46 25.5	46 2.3	45 38.0	45 12.8	44 49.3	44 26.8	44 0.9	43 34.5	....	43 9.8	....	....
21	E.	N.	2	....	10 29.0	10 50.7	11 13.8	11 34.3	11 56.2	12 18.0	12 40.7	....	13 4.0	....	....
		S.	2	....	17 59.0	17 33.6	17 5.9	16 42.4	16 19.2	15 53.9	15 29.6	....	15 6.9	....	....
	W.	S.	3	....	36 49.7	37 14.5	37 40.4	38 4.8	38 29.8	38 54.0	39 19.4	....	39 42.1	....	....
		N.	3	....	44 20.1	43 59.3	43 35.6	43 15.2	42 54.4	42 31.4	42 7.8	....	41 45.6	....	....
27	E.	N.	1 19 57.8	....	20 46.5	21 10.4	21 34.4	21 57.7	22 21.2	22 46.4	23 12.3	....	....	....	....
		S.	1 30 10.3	....	29 9.9	28 42.6	28 11.4	27 43.6	27 16.0	26 47.7	26 20.7	....	....	....	....
	W.	S.	2 36 37.6	....	37 38.2	38 6.2	38 38.3	39 6.2	39 33.3	40 0.7	40 27.8	....	....	....	....
		N.	2 46 53.0	....	46 5.3	45 42.4	45 16.3	44 53.3	44 28.8	44 3.7	43 37.7	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
ρ Persei	261.2	263.2	+0.325	+0.261	+38 23 27.63	−18.41	+38 23 9.22	T.	Very diffuse.
	262.4	265.6							
	265.6	269.6	+0.225						Diffuse.
	267.2	266.8							
α Lyræ	240.9	249.0	+0.831	+0.764	38 40 48.55	−16.53	38 40 32.02	T.	Diffuse; unsteady; clouds.
	241.6	246.8							
	240.8	246.8	+0.756						Unsteady; hazy.
	239.5	245.6							
τ Cygni	236.8	244.8	+0.738	+0.652	37 33 21.28	−33.62	37 32 47.66	T.	Very faint indeed.
	238.6	242.4							
	249.6	253.5	+0.631						Good seeing.
	249.2	255.4							
14 Andromedæ	250.7	255.6	+0.594	+0.573	38 36 14.36	−37.04	38 35 37.32	B.	Image diffuse; very unsteady.
	251.5	256.1							
	255.7	261.2	+0.606						Very bad seeing.
	257.0	261.2							
32 Andromedæ	258.5	261.4	+0.669	+0.602	38 49 32.34	−33.92	38 48 58.42	B.	Poor seeing.
	257.8	265.6							
	258.1	266.0	+0.594						Bad seeing.
	264.0	265.6							
59 Andromedæ	265.6	266.9	+0.456	+0.456	38 29 37.02	−25.46	38 29 11.56	B.	Tolerable seeing.
	264.1	270.1							
	268.2	275.1	+0.506						Tolerable image; unsteady.
	272.0	273.2							
ρ Persei	267.7	272.8	+0.350	+0.401	38 23 27.86	−18.50	38 23 9.36	B.	Bad image; much diffuse.
	270.9	271.4							
	276.0	276.0	+0.500						Bad seeing; image much diffuse.
	272.4	280.4							
α Lyræ	247.1	255.1	+0.831	+0.736	38 40 48.29	−16.27	38 40 32.02	B.	Unsteady: light clouds.
	244.4	249.7							
	239.0	245.6	+0.700						Better seeing.
	236.6	241.2							
32 Andromedæ	306.4	304.6	+0.638	+0.665	38 49 31.94	−34.15	38 48 57.79	B.	Tolerable seeing.
	300.2	312.2							
	301.5	313.0	+0.794						Tolerable seeing.
	307.6	308.8							
α Lyræ	147.0	152.0	+0.313	+0.305	38 40 46.24	−13.74	38 40 32.50	T.	Fair image; clouds; transits over threads A to VI, XII.
	149.8	149.8							
	152.1	150.4	+0.288						Not quite steady.
	148.7	155.0							
32 Andromedæ	164.0	162.4	−0.081	+0.016	38 49 32.29	−34.04	38 48 58.25	B.	Fair seeing; clear.
	163.7	164.0							
	163.5	164.1	+0.113						Fair seeing.
	164.0	165.2							
μ Andromedæ	160.8	164.0	+0.131	+0.084	37 52 24.69	−32.76	37 51 51.93	B.	Fair seeing; light clouds.
	163.5	162.4							
	168.1	168.1	+0.038						Tolerable seeing; image considerably diffuse.
	168.1	168.7							
59 Andromedæ	166.1	167.1	+0.031	+0.019	38 29 37.69	−26.16	38 29 11.53	B.	Very fair seeing.
	167.7	167.2							
	169.2	169.6	+0.006						Tolerable seeing.
	169.6	169.3							
B. A. C. 662	166.1	167.1	+0.031	+0.019	38 29 51.47	−26.16	38 29 25.31	B.	Very fair seeing; faint at times.
	167.7	167.2							
	169.2	169.6	+0.006						Tolerable seeing.
	169.6	169.3							
ρ Persei	169.1	168.4	−0.106	−0.047	38 23 28.81	−19.43	38 23 9.38	B.	Image much diffuse.
	169.7	168.7							
	169.5	170.5	+0.013						Tolerable image.
	170.4	169.6							
59 Andromedæ	161.4	168.8	+0.050	+0.226	+38 29 38.59	−26.28	+38 29 12.31	T.	Not good seeing; faint.
	169.6	163.0							
	167.2	164.6	+0.400						Faint.
	160.6	169.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1883			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Dec. 27	E.	N.	1 20 9.0	20 32.5	20 56.9	21 21.4	21 44.4	22 9.0	22 32.3	22 57.7	23 24.1	....	....	....	....
		S.	1 30 22.5	29 52.5	29 22.6	28 55.1	28 24.5	27 56.8	27 27.5	26 59.9	26 32.3	....	....	....	....
	W.	S.	2 36 25.7	36 55.4	37 27.7	37 54.4	38 27.2	38 54.5	39 21.5	39 50.4	40 18.3	....	....	....	....
		N.	2 46 44.4	46 20.8	45 55.7	45 34.1	45 6.3	44 43.2	44 19.4	43 53.9	43 28.6	....	....	....	....
27	E.	S.	2 9 41.1	10 2.9	....	10 48.0	....	....	....	....	12 40.2	....	13 2.4	....	....
		N.	2 18 43.4	18 16.6	....	17 23.0	....	....	....	....	15 19.6	....	14 55.7	....	....
	W.	N.	3 35 54.3	36 20.8	....	37 13.2	....	....	....	....	39 18.8	....	39 41.7	....	....
		S.	3 44 55.3	44 33.9	....	43 50.7	....	....	....	....	41 56.8	....	41 35.7	....	....
27	E.	N.	2 51 53.9	52 8.8	52 23.9	52 37.1	52 54.1	53 8.4	53 22.8	53 38.2	53 53.9	....	54 8.5	....	....
		S.	2 57 52.1	57 36.4	57 19.9	57 5.0	56 47.8	56 32.4	56 17.0	56 1.2	55 45.3	....	55 30.5	....	....
	W.	S.	5 3 2.4	3 18.4	3 34.8	3 49.3	4 7.0	4 22.2	4 37.1	4 53.1	5 9.2	....	5 24.3	....	....
		N.	5 9 0.5	8 46.1	8 30.7	8 17.0	8 0.6	7 46.2	7 31.2	7 16.5	7 0.7	....	6 45.9	....	....
27	E.	S.	8	....	....	....	40 29.1	40 58.6	41 31.0	42 3.1	42 35.8	42 51.8	43 8.0	43 25.2	43 40.8
		N.	8	....	....	....	49 17.6	48 38.2	47 55.6	47 14.4	46 37.4	46 20.1	46 1.0	45 42.6	45 27.0
	W.	N.	9	....	....	....	37 12.7	37 53.2	38 34.7	39 15.0	39 54.1	40 12.6	40 29.6	40 49.0	41 6.8
		S.	9	....	....	....	46 3.9	45 32.8	45 0.8	44 28.7	43 56.9	43 41.0	43 24.7	43 7.4	42 51.9
27	E.	N.	9 1 17.2	1 29.5	1 42.6	1 54.4	2 8.3	2 20.8	2 33.3	2 46.0	2 59.7	....	....	....	....
		S.	9 6 21.6	6 8.4	5 54.7	5 42.2	5 27.5	5 14.5	5 1.8	4 48.2	4 34.2	....	....	....	....
	W.	S.	11 35 4.5	35 18.4	35 32.4	35 44.9	35 59.4	36 12.4	36 25.4	36 38.5	36 51.5	....	....	....	....
		N.	11 40 9.5	39 56.4	39 43.3	39 31.0	39 18.2	39 5.3	38 52.8	38 40.2	38 26.6	....	....	....	....
27	E.	S.	9	49 39.3	50 5.2	50 28.9	50 54.0	51 18.4	51 45.0	52 10.5	52 35.4	....	53 0.4	....	....
		N.	9	59 6.6	58 34.4	58 4.0	57 32.5	57 5.3	56 34.8	56 6.5	55 39.3	....	55 12.4	....	....
	W.	N.	11	4 56.0	5 28.3	5 58.6	6 30.6	6 58.6	7 28.4	7 56.6	8 25.1	....	8 51.5	....	....
		S.	11	14 23.4	13 59.0	13 34.5	13 7 0	12 44.6	12 18.5	11 52.4	11 27.6	....	11 1.7	....	....
27	E.	N.	14	....	....	....	....	....	4 45.2	5 32.1	6 21.0	6 47.0	7 11.3	7 36.8	....
		S.	14	....	....	....	....	....	16 20.7	14 51.8	13 31.0	12 55.4	12 20.5	11 44.2	....
	W.	S.	14	....	....	....	....	....	37 22.6	38 54.1	40 16.9	40 54.8	41 29.7	42 4.8	... ...
		N.	14	....	....	....	....	....	49 5.0	48 20.4	47 30.1	47 6.4	46 40.0	46 15.3	....
28	E.	N.	17 57 51.6	....	58 51.1	....	....	....	0 55.2	1 27.6	2 1.1	2 17.9	2 31.6	2 50.9	3 10.1
		S.	18 12 14.5	....	10 38.0	....	....	....	7 43.9	7 2.0	6 23.4	6 3.9	5 46.5	5 26.4	5 6.3
	W.	S.	18 52 46.2	....	54 23.5	....	....	....	57 15.5	57 56.3	58 37.9	58 56.2	59 13.2	59 33.6	59 54.4
		N.	19 7 9.4	....	6 9.4	....	....	....	4 5.6	3 32.8	2 58.6	2 42.6	2 26.9	2 9.3	1 49.9
28	E.	N.	23 45 7.3	45 23.0	45 39.0	45 53.7	46 11.4	46 26.0	46 42.0	46 58.5	47 15.3	....	....	....	....
		S.	23 51 31.0	51 12.9	50 55.0	50 39.1	50 20.8	50 4.2	49 47.4	49 31.0	49 14.8	....	....	....	....
	W.	S.	1 48 12.3	48 30.4	48 47.9	49 4.5	49 22.8	49 38.6	49 55.8	50 12.4	50 29.8	....	....	....	....
		N.	1 54 35.2	54 18.0	54 2.5	53 47.6	53 31.3	53 17.4	53 0.3	52 44.7	52 27.2	....	....	....	....
28	E.	S.	1	....	20 48.0	21 12.4	21 35.0	21 59.4	22 24.0	22 50.1	23 15.1	....	23 40.1	....	....
		N.	1	....	29 5.4	28 35.7	28 4.7	27 38.3	27 8.4	26 40.5	26 13.4	....	25 47.4	....	....
	W.	N.	2	....	37 42.0	38 11.1	38 42.4	39 7.5	39 37.4	40 6.2	40 34.6	....	41 0.0	....	....
		S.	2	....	46 1.0.	45 37.0	45 10.6	44 46.9	44 22.3	43 56.5	43 32.7	....	43 7.3	....	....
28	E.	S.	1	....	20 58.5	21 22.0	21 46.5	22 8.9	22 35.4	23 1.7	23 25.3	....	23 52.3	....	....
		N.	1	....	29 19.4	28 49.3	28 18.6	27 51.7	27 21.5	26 53.5	26 26.3	....	26 0.5	....	....
	W.	N.	2	....	37 29.8	37 59.4	38 30.0	38 58.1	39 27.4	39 55.5	40 22.8	....	40 49.3	....	....
		S.	2	....	45 52.5	45 28.4	45 1.4	44 38.4	44 13.0	43 47.4	43 21.7	....	42 58.9	....	....
28	E.	S.	2	....	10 25.0	10 47.0	11 9.2	11 30.4	11 53.5	12 15.5	12 38.5	12 50.2	13 1.3	....	....
		N.	2	....	17 49.0	17 23.0	16 56.0	16 31.9	16 5.6	15 42.3	15 17.4	15 6.8	14 54.7	....	....
	W.	N.	3	....	36 47.1	37 11.0	37 38.8	38 2.1	38 26.3	38 51.9	39 17.7	39 28.1	39 38.7	....	....
		S.	3	....	44 10.0	43 49.4	43 25.2	43 4.4	42 40.4	42 18.6	41 55.8	41 44.6	41 34.7	....	....
28	E.	S.	2	....	....	....	....	53 10.4	53 26.5	53 41.0	53 56.6	54 3.3	....	....	....
		N.	2	....	....	....	....	56 29.4	56 12.8	55 56.8	55 41.9	55 35.7	... ..	....	....
	W.	N.	5	....	....	....	....	3 24.7	3 40.0	3 55.0	4 11.9	4 18.4	....	....	....
		S.	5	....	....	....	....	6 42.0	6 26.4	6 11.4	5 56.2	5 48.9	....	....	....
28	E.	N.	8	....	....	....	40 23.3	40 54.3	41 24.5	....	42 28.9	....	43 2.7	43 19.9	43 37.8
		S.	8	....	....	....	49 24.1	48 43.6	48 4.1	....	46 44.4	....	46 7.5	45 48.9	45 30.3
	W.	S.	9	....	....	....	37 6.9	37 47.9	38 27.9	....	39 43.0	....	40 21.3	40 41.9	41 0.1
		N.	9	....	....	....	46 6.6	45 36.1	45 5.3	....	44 0.2	....	43 28.7	43 11.6	42 53.4
28	E.	S.	7	58 57.3	59 8.3	59 20.3	59 33.0	59 43.3	59 55.6	0 7.6	0 20.0	....	....	....	....
		N.	8	3 3.9	2 52.7	2 40.3	2 27.5	2 16.3	2 4.1	1 51.8	1 39.9	....	....	....	....
	W.	N.	10	50 15.0	50 27.1	50 38.7	50 51.6	51 2.7	51 15.8	51 27.7	51 38.9	....	....	....	....
		S.	10	54 22.6	54 10.7	53 59.9	53 46.5	53 35.5	53 23.4	53 12.1	52 59.8	....	....	....	....
28	E.	S.	9	1 30.9	1 44.2	1 56.7	2 10.5	2 22.4	2 35.9	2 50.0	3 1.8	....	....	....	....
		N.	9	6 6.6	5 52.8	5 40.2	5 24.4	5 11.9	4 57.7	4 45.0	4 32.4	....	....	....	....
	W.	N.	11	35 19.3	35 31.3	35 45.7	36 0.4	36 13.4	36 26.7	36 40.0	36 53.6	....	....	....	....
		S.	11	39 55.4	39 41.3	39 28.2	39 15.6	39 3.3	38 50.0	38 36.9	38 23.6	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
B. A. C. 662..	161.4	168.8	+0.050	+0.226	+38 29 52.04	−26.28	+38 29 25.76	T.	Not good seeing; faint.
	169.6	163.0							
	167.2	164.6	+0.400						Faint.
	160.6	169.6							
ρ Persei.......	169.0	164.4	+0.163	+0.252	38 23 28.91	−19.70	38 23 9.21	T.	Fair image.
	162.8	170.0							
	158.8	166.2	+0.338						High wind; clouds.
	163.0	161.0							
50 Persei.......	161.2	168.7	+0.169	+0.247	37 44 6.55	−10.52	37 43 56.03	T.	Good image; high wind.
	166.8	162.0							
	166.8	161.6	+0.352						Good seeing; high wind.
	159.2	169.6							
Lalande 18362	177.3	173.2	−0.081	−0.125	38 40 25.20	+32.60	38 40 57.80	B.	Tolerable image; faint; steady; high wind.
	174.6	177.4							
	176.1	176.3	−0.169						Faint; poor; thin clouds; high wind.
	178.1	175.2							
31 Leonis Min..	174.2	178.0	−0.125	−0.086	37 17 46.15	+36.22	37 18 22.37	B.	Tolerable image; steady; high wind; fleecy clouds.
	178.9	173.1							
	180.8	176.8	−0.050						Tolerable image; steady.
	177.4	180.6							
38 Leonis Min..	178.8	175.2	−0.075	−0.087	38 30 32.94	+36.87	38 31 9.81	B.	Tolerable seeing and image; very thin clouds; high wind.
	176.0	178.4							
	178.0	180.0	−0.100						Very fair seeing.
	180.6	177.0							
γ Bootis.......	184.6	184.2	−0.156	−0.152	38 48 48.96	+25.12	38 49 14.08	B.	Faint; unsteady; light clouds.
	186.0	183.9							
	186.8	184.8	−0.150						Faint; unsteady; light clouds.
	185.4	185.0							
α Lyræ........	168.8	174.8	+0.169	+0.198	38 40 44.16	−11.76	38 40 32.40	T.	Diffuse image; not steady.
	173.4	170.1							
	173.6	170.4	+0.225						Fair seeing.
	167.7	174.5							
μ Andromedæ .	166.1	174.7	+0.150	+0.174	37 52 24.75	−32.60	37 51 52.15	B.	Distinct; good image; light clouds.
	174.3	168.1							
	178.9	174.0	+0.200						Good seeing.
	172.9	181.0							
59 Andromedæ .	177.6	172.0	+0.050	+0.106	38 29 38.05	−26.33	38 29 11.72	B.	Very fair seeing.
	172.6	179.0							
	175.1	180.9	+0.163						
	179.8	176.6							
B. A. C. 662..	177.6	172.0	+0.050	+0.106	38 29 51.67	−26.33	38 29 25.34	B.	Very fair seeing.
	172.6	179.0							
	175.1	180.9	+0.163						
	179.8	176.6							
ρ Persei.......	179.9	174.9	+0.038	+0.131	38 23 29.08	−19.78	38 23 9.30	B.	Fair seeing; tolerable image.
	174.9	180.5							
	176.1	182.7	+0.225						Image much diffuse.
	181.1	178.1							
50 Persei.......	180.6	175.8	+0.013	−0.003	37 44 7.27	−10.63	37 43 56.64	B.	Tolerable seeing and image.
	175.7	180.7							
	179.7	185.2	−0.019						Fair image; steady.
	185.8	180.0							
Lalande 18362	193.2	197.2	−0.413	−0.291	38 40 25.78	+32.63	38 40 58.41	T.	Diffuse; unsteady.
	201.1	190.5							
	201.2	193.2	−0.175						Poor seeing.
	195.2	200.4							
10 Leonis Min..	199.0	191.0	−0.263	−0.383	36 54 25.01	+33.32	36 54 58.33	T.	Fair seeing; image diffuse; not steady.
	193.4	197.2							
	198.8	201.2	−0.525						Not good seeing.
	205.2	194.4							
31 Leonis Min..	200.9	191.0	−0.400	−0.451	+37 17 46.58	+36.32	+37 18 22.90	T.	Poor seeing; diffuse; unsteady.
	194.4	197.9							
	199.0	201.0	−0.525						Not good seeing; diffuse; unsteady.
	205.6	195.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1883 Dec. 28	E.	N.	9	......	......	50 25.6	50 52.4	51 15.0	51 40.4	52 5.4	52 31.9	52 45.3	52 58.2	53 12.2	......
		S.	9	......	......	58 10.6	57 36.7	57 11.2	56 40.4	56 11.6	55 44.0	55 30.4	55 17.0	55 2.9	......
	W.	S.	11	......	......	5 54.9	6 25.6	6 52.1	7 21.4	7 50.6	8 18.8	8 30.9	8 43.7	8 58.9	......
		N.	11	......	......	13 36.7	13 11.5	12 45.9	12 22.5	11 57.0	11 32.0	11 18.3	11 6.8	10 52.9	......
29	E.	S.	0	......	......	......	......	......	13 25.4	14 15.3	......	15 31.6	15 58.6	16 27.9	16 54.7
		N.	0	......	......	......	......	......	25 37.7	23 54.1	......	21 43.2	21 7.2	20 26.3	19 53.6
	W.	N.	0	......	......	......	......	......	43 0.4	44 46.2	......	46 58.7	47 36.9	48 13.9	48 49.4
		S.	0	......	......	......	......	......	55 16.2	54 26.4	......	53 10.2	52 43.0	52 14.6	51 46.0
29	E.	N.	23	45 22.5	45 38.1	45 53.2	46 10.4	46 25.8	46 41.4	46 57.1	......	......	......	......	......
		S.	23	51 12.5	50 55.0	50 38.6	50 20.4	50 4.2	49 47.7	49 30.3	......	......	......	......	......
	W.	S.	1	48 29.2	48 46.8	49 3.3	49 21.4	49 37.8	49 54.5	50 11.3	......	......	......	......	......
		N.	1	54 18.8	54 2.7	53 47.3	53 30.9	53 15.6	53 0.7	52 44.2	......	......	......	......	......
29	E.	S.	1 19 58.8	20 22.8	20 47.1	21 11.1	21 36.4	22 0.0	22 25.4	22 50.7	23 16.0	......	......	......	......
		N.	1 30 6.9	29 34.2	29 3.6	28 35.0	28 3.6	27 37.0	27 7.4	26 38.9	26 12.1	......	......	......	......
	W.	N.	2 36 37.8	37 10.0	37 40.3	38 10.6	38 41.2	39 7.1	39 38.9	40 6.1	40 34.8	......	......	......	......
		S.	2 46 48.9	46 23.6	46 0.3	45 35.2	45 10.2	44 47.1	44 21.8	43 55.7	43 31.0	......	......	......	......
29	E.	S.	1 20 8.6	20 33.9	20 57.1	21 21.5	21 47.9	22 10.9	22 36.2	23 0.9	23 27.1	......	......	......	......
		N.	1 30 18.9	29 47.8	29 17.9	28 47.5	28 17.1	27 49.4	27 19.3	26 51.7	26 24.2	......	......	......	......
	W.	N.	2 36 27.0	36 58.5	37 28.8	37 59.8	38 30.8	38 58.3	39 27.6	39 56.6	40 23.3	......	......	......	......
		S.	2 46 39.9	46 15.0	45 51.6	45 25.9	45 1.4	44 37.3	44 11.5	43 46.9	43 21.6	......	......	......	......
29	E.	N.	2	9 59.2	10 21.1	10 42.6	11 4.4	11 27.8	11 48.2	12 9.0	12 32.0	......	12 55.3	......	......
		S.	2	18 17.6	17 51.9	17 26.0	17 1.9	16 35.4	16 12.0	15 47.4	15 21.9	......	15 1.2	......	......
	W.	S.	3	36 15.5	36 40.3	37 6.3	37 31.7	37 59.9	38 21.5	38 46.7	39 13.0	......	39 35.5	......	......
		N.	3	44 34.3	44 14.2	43 50.4	43 29.4	43 7.4	42 46.3	42 23.8	41 59.6	......	41 38.3	......	......
29	E.	S.	2	52 9.0	52 25.0	52 40.0	52 55.6	53 9.8	......	......	......	......	......	......	......
		N.	2	57 32.8	57 16.9	56 59.7	56 43.0	56 29.0	......	......	......	......	......	......	......
	W.	N.	5	3 18.2	3 35.8	3 50.9	4 8.8	4 22.8	......	......	......	......	......	......	......
		S.	5	8 41.9	8 27.3	8 11.1	7 56.9	7 42.2	......	......	......	......	......	......	......
29	E.	S.	17 57 56.8	......	58 57.6	59 26.5	0 0.6	0 30.9	1 3.5	1 36.0	......	......	......	......	......
		N.	18 11 59.3	......	10 24.0	9 36.7	8 49.3	8 9.3	7 27.6	6 47.0	......	......	......	......	......
	W.	N.	18 53 0.0	......	54 36.6	55 22.6	56 8.3	56 49.4	57 30.8	58 13.8	......	......	......	......	......
		S.	19 7 2.0	......	6 1.0	5 30.5	4 56.6	4 28.4	3 53.4	3 21.5	......	......	......	......	......
1884 Jan. 2	E.	S.	1	......	20 41.0	21 7.0	21 32.8	21 55.5	22 20.1	22 46.0	23 12.4	......	......	......	......
		N.	1	......	29 0.1	28 29.0	28 0.5	27 32.0	27 1.6	26 36.4	26 6.0	......	......	......	......
	W.	N.	2	......	37 37.0	38 7.3	38 37.0	39 1.4	39 32.0	40 0.4	40 28.0	......	......	......	......
		S.	2	......	45 56.9	45 31.4	45 5.8	44 43.4	44 16.5	43 51.7	43 28.4	......	......	......	......
2	E.	S.	1	......	20 53.7	21 20.4	21 43.9	22 6.7	22 32.0	22 57.4	......	......	......	......	......
		N.	1	......	29 14.0	28 43.3	28 13.1	27 46.1	27 16.9	26 48.6	......	......	......	......	......
	W.	N.	2	......	37 23.7	37 56.4	38 26.0	38 50.3	39 19.9	39 48.4	......	......	......	......	......
		S.	2	......	45 46.7	45 20.8	44 56.9	44 33.4	44 7.4	43 43.4	......	......	......	......	......
2	E.	N.	2	9 58.9	10 19.0	10 41.0	11 1.7	11 24.3	11 45.0	12 7.5	12 30.3	......	12 52.1	......	......
		S.	2	18 13.0	17 47.4	17 21.9	16 57.6	16 32.7	16 8.4	15 43.0	15 19.1	......	14 56.1	......	......
	W.	S.	3	36 10.8	36 36.6	37 2.0	37 26.8	37 52.4	38 16.6	38 40.7	39 7.0	......	39 28.9	......	......
		N.	3	44 28.8	44 8.0	43 48.0	43 25.4	43 2.7	42 39.8	42 18.3	41 55.4	......	41 33.9	......	......
2	E.	S.	8	......	39 21.0	39 52.1	40 23.1	40 51.9	41 26.3	41 58.0	42 31.8	......	43 2.4	......	43 36.5
		N.	8	......	50 46.9	49 59.0	49 12.7	48 35.5	47 51.7	47 13.9	46 35.3	......	45 59.2	......	45 21.0
	W.	N.	9	......	35 32.4	36 19.8	37 7.4	37 44.8	38 26.3	39 6.1	39 45.7	......	40 23.2	......	40 57.8
		S.	9	......	47 2.9	46 30.6	45 56.9	45 27.4	44 56.4	44 24.3	43 52.1	......	43 18.4	......	42 43.8
2	E.	N.	9 1 12.4	1 25.5	1 38.3	1 50.8	2 4.1	2 17.2	2 28.7	2 42.8	......	......	......	......	......
		S.	9 6 16.8	6 3.2	5 49.0	5 35.9	5 22.7	5 10.0	4 55.6	4 43.2	......	......	......	......	......
	W.	S.	11 34 59.2	35 14.6	35 26.9	35 40.2	35 53.4	36 6.9	36 20.4	36 33.3	......	......	......	......	......
		N.	11 40 4.6	39 50.7	39 37.9	39 25.7	39 12.5	38 59.5	38 46.8	38 34.9	......	......	......	......	......
2	E.	S.	9	......	......	50 26.3	50 50.9	51 14.4	51 41.5	52 5.8	52 31.0	52 43.3	52 56.6	53 8.5	......
		N.	9	......	......	57 59.5	57 29.2	57 0.6	56 30.0	56 1.5	55 34.7	55 22.8	55 7.6	54 53.4	......
	W.	N.	11	......	......	5 53.4	6 23.2	6 50.3	7 21.4	7 49.7	8 16.5	8 30.7	8 45.0	8 58.3	......
		S.	11	......	......	13 28.6	13 2.7	12 39.0	12 14.0	11 49.1	11 21.4	11 9.9	10 57.4	10 43.2	......
2	E.	N.	11	......	......	48 33.0	48 51.1	49 11.2	......	49 46.4	50 5.6	50 14.9	50 25.3	50 33.9	......
		S.	11	......	......	54 3.7	53 42.5	53 22.7	......	52 42.5	52 23.9	52 13.9	52 4.9	51 55.1	......
	W.	S.	13	......	......	34 8.9	34 28.3	34 48.6	......	35 27.8	35 48.2	35 58.7	36 6.6	36 18.0	......
		N.	13	......	......	39 40.2	39 22.2	39 2.8	......	38 27.0	38 8.0	37 58.4	37 49.6	37 39.9	......
2	E.	S.	12	......	......	......	5 4.6	5 20.3	5 38.6	5 56.9	6 14.2	......	6 31.6	......	......
		N.	12	......	......	......	9 30.4	9 12.9	8 54.2	8 35.4	8 16.2	......	7 58.6	......	......
	W.	N.	13	......	......	......	57 57.8	58 16.2	58 33.8	58 53.2	59 12.2	......	59 29.8	......	......
		S.	14	......	......	......	2 23.5	2 7.9	1 49.9	1 31.5	1 14.6	......	0 58.2	......	......

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ' "	' "	° ' "		
38 Leonis Min. .	196.4	199.2	−0.463	−0.465	+38 30 33.60	+36.97	+38 31 10.57	T.	Bad seeing.
	203.2	193.0							
	205.2	194.8	−0.481						Not good seeing; diffuse; unsteady.
	198.5	201.2							
32 Andromedæ .	169.4	162.0	−0.056	−0.009	38 49 32.02	−33.80	38 48 58.22	T.	Very faint; steady; well defined; light clouds.
	162.8	169.3							
	162.8	169.6	+0.038						Good seeing.
	169.4	163.2							
μ Andromedæ .	162.4	170.0	+0.063	+0.150	37 52 24.73	−32.60	37 51 52.13	T.	Good seeing; image well defined; steady.
	169.2	162.6							
	171.0	164.8	+0.238						Excellent seeing.
	163.2	173.2							
59 Andromedæ .	170.6	162.8	+0.013	+0.088	38 29 38.36	−26.39	38 29 11.97	T.	Very good seeing.
	163.2	171.2							
	166.7	174.5	+0.163						Good seeing.
	174.8	169.6							
B. A. C. 662 . .	170.6	162.8	+0.013	+0.088	38 29 51.55	−26.40	38 29 25.15	T.	Very good seeing.
	163.2	171.2							
	166.7	174.5	+0.163						Good seeing.
	174.8	169.6							
ρ Persei	165.1	173.2	−0.044	+0.140	38 23 28.96	−19.87	38 23 9.09	T.	Good image; not quite steady.
	174.0	165.2							
	178.8	175.6	+0.325						Fair image.
	174.2	182.6							
50 Persei	177.3	168.0	−0.100	−0.053	37 44 6.72	−10.73	37 43 55.99	T.	Good image.
	170.0	177.7							
	178.4	184.9	−0.006						Fair seeing.
	185.3	178.7							
α Lyræ.	170.2	167.8	+0.238	+0.318	38 40 43.01	−11.10	38 40 31.91	B.	Faint; at times unsteady; haze; light clouds.
	162.8	169.0							
	156.0	164.2	+0.394						Tolerable image; light clouds.
	159.0	157.1							
59 Andromedæ .	174.7	168.4	+0.106	−0.040	38 29 37.95	−26.54	38 29 11.41	B.	Tolerable seeing; high wind; occasional thin clouds.
	171.3	179.3							
	182.7	186.0	0.188						Tolerable seeing.
	188.3	182.0							
B. A. C. 662 . .	174.7	168.4	+0.106	−0.040	38 29 52.44	−26.54	38 29 25.90	B.	Tolerable seeing; high wind; occasional thin clouds; faint at times.
	171.3	179.3							
	182.7	186.0	0.188						Tolerable seeing.
	188.3	182.0							
ρ Persei	179.1	184.5	−0.056	−0,247	38 23 30.02	−20.18	38 23 9.84	B.	Poor image; much diffuse.
	186.3	180.0							
	195.2	187.6	−0.444						Fair image; better seeing.
	192.0	192.5							
Lalande 18362	205.4	189.8	0.988	0.772	38 40 25.80	+32.51	38 40 58.31	T.	Not good seeing; diffuse; unsteady.
	198.6	198.4							
	200.2	199.8	−0.575						Poor seeing.
	205.6	196.8							
31 Leonis Min. .	198.4	199.3	−0.731	−0.724	37 17 46.38	+36.55	37 18 22.93	T.	Poor seeing; diffuse; unsteady.
	205.6	193.0							
	211.0	201.0	−0.756						Poor seeing; diffuse.
	207.1	205.0							
38 Leonis Min. .	207.2	195.2	−0.850	−0.802	38 30 33.32	+37.23	38 31 10.55	T.	Poor seeing; very diffuse; unsteady.
	202.8	201.2							
	206.8	203.1	0.781						Poor seeing.
	210.4	201.6							
B. A. C. 4311. .	208.1	204.1	−0.938	−1.407	38 8 38.34	+35.63	38 9 13.97	T.	Very faint; diffuse.
	211.9	200.9							
	229.0	207.8	−1.950						Faint; light fleecy clouds.
	222.4	212.4							
B. A. C. 4407.	211.5	201.5	0.875	−1.096	+38 2 14.23	+34.37	+38 2 48.60	T.	Very faint; diffuse.
	209.0	205.0							
	221.8	211.8	1.375						Very faint indeed; clouds.
	221.6	209.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1884 Jan. 2	E.	S.	17	58 22.0	58 51.9	59 26.0	59 57.8	0 26.7	1 0.0	1 33.0	2 5.3	....	2 39.1	....	3 13.0
		N.	18	11 5.5	10 17.0	9 29.0	8 43.7	8 5.2	7 23.7	6 42.8	6 3.4	....	5 27.3	....	4 50.3
	W.	N.	18	53 47.8	54 34.5	55 21.5	56 5.6	56 45.7	57 29.4	58 9.9	58 48.2	....	59 25.4	....	0 2.0
		S.	19	6 30.5	5 57.8	5 25.3	4 54.2	4 23.8	3 50.6	3 18.4	2 45.0	....	2 13.2	....	1 39.9
3	E.	N.	0	....	....	....	....	....	13 6.8	13 56.7	14 49.9	15 16.0	15 39.0	16 8.8	16 38.5
		S.	0	....	....	....	....	....	26 4.9	24 16.4	22 40.3	21 57.9	21 21.9	20 39.6	20 0.7
	W.	S.	0	....	....	....	....	....	42 19.3	44 12.2	45 48.8	46 33.6	47 10.7	47 52.6	48 30.6
		N.	0	....	....	....	....	....	55 24.9	54 35.6	53 41.6	53 18.3	52 53.9	52 24.2	51 52.4
3	E.	S.	23	....	....	....	46 9.4	46 24.7	46 41.2	46 57.6	47 13.9	47 21.5	47 29.5	47 37.3	....
		N.	23	....	....	....	50 12.3	49 56.1	49 38.7	49 22.0	49 4.7	48 57.8	48 49.1	48 40.4	....
	W.	N.	1	....	....	....	49 20.9	49 36.9	49 53.8	50 10.7	50 27.9	50 35.3	50 43.5	50 52.0	....
		S.	1	....	....	....	53 23.9	53 8.8	52 52.4	52 36.0	52 19.1	52 11.8	52 4.0	51 55.9	....
3	E.	N.	17	....	58 43.7	59 12.8	59 46.4	0 16.7	0 45.2	1 17.9	1 53.2	....	2 23.3	....	3 2.4
		S.	18	....	10 24.8	9 39.0	8 57.3	8 13.4	7 32.9	6 53.2	6 11.5	....	5 37.5	....	4 53.8
	W.	S.	18	....	54 22.1	55 8.1	55 54.2	56 33.6	57 16.4	57 55.3	58 34.9	....	59 12.1	....	59 53.3
		N.	19	....	6 4.7	5 37.5	5 4.2	4 33.8	4 2.3	3 31.3	3 0.1	....	2 25.6	....	1 48.4
4	E.	N.	0	....	....	....	....	....	....	13 58.1	14 50.3	15 16.3	15 43.9	16 10.4	16 40.4
		S.	0	....	....	....	....	....	....	24 16.0	22 38.0	21 59.0	21 18.9	20 38.2	19 59.3
	W.	S.	0	....	....	....	....	....	....	44 14.0	45 54.4	46 37.2	47 11.3	47 51.4	48 32.6
		N.	0	....	....	....	....	....	....	54 38.0	53 43.0	53 19.8	52 52.0	52 24.4	51 53.0
4	E.	N.	1	20 14.0	20 39.0	21 0.4	21 26.7	21 49.9	22 15.3	22 38.3	23 4.0	....	23 29.3	....	....
		S.	1	29 35.0	29 4.5	28 36.3	28 8.2	27 37.0	27 9.8	26 42.7	26 14.3	....	25 48.8	....	....
	W.	S.	2	37 1.5	37 31.3	38 0.4	38 30.8	38 58.0	39 26.4	39 52.8	40 23.6	....	40 49.4	....	....
		N.	2	46 22.9	45 58.8	45 36.4	45 11.1	44 46.6	44 21.7	43 58.4	43 31.0	....	43 8.0	....	....
4	E.	N.	2	9 55.4	10 17.0	10 37.3	10 59.9	11 22.7	11 43.6	12 6.8	12 29.7	....	12 51.4	....	....
		S.	2	18 12.5	17 47.0	17 21.9	16 56.2	16 30.5	16 6.4	15 43.4	15 18.1	....	14 55.0	....	....
	W.	S.	3	36 12.1	36 39.0	37 0.6	37 27.3	37 53.2	38 16.3	38 41.4	39 6.6	....	39 28.7	....	....
		N.	3	44 30.0	44 6.0	43 47.0	43 25.6	43 2.3	42 40.7	42 17.8	41 55.8	....	41 33.4	....	....
6	E.	N.	0	....	....	....	....	....	13 4.5	13 53.6	14 46.6	15 13.1	15 38.1	16 4.3	16 37.5
		S.	0	....	....	....	....	....	26 6.9	24 15.9	22 39.6	21 57.5	21 20.4	20 40.8	20 3.3
	W.	S.	0	....	....	....	....	....	42 26.7	44 10.2	45 51.3	46 30.6	47 10.1	47 51.0	48 28.1
		N.	0	....	....	....	....	....	55 24.6	54 35.3	53 43.9	53 18.0	52 53.8	52 26.3	51 54.5
6	E.	S.	23	....	....	....	46 9.7	....	46 41.4	46 56.3	47 12.9	47 21.3	47 28.8	47 37.4	....
		N.	23	....	....	....	50 10.6	....	49 37.3	49 19.3	49 3.0	48 55.7	48 47.7	48 41.1	....
	W.	N.	1	....	....	....	49 20.0	....	49 52.7	50 9.7	50 26.6	50 34.4	50 42.7	50 51.0	....
		S.	1	....	....	....	53 22.7	....	52 51.2	52 35.4	52 18.7	52 11.2	52 2.2	51 54.6	....
6	E.	N.	1	20 14.9	20 40.0	21 2.9	21 26.1	21 50.9	22 14.6	22 40.3	23 5.0	....	23 29.0	....	....
		S.	1	29 34.9	29 5.0	28 36.0	28 7.7	27 38.4	27 9.9	26 42.7	26 14.4	....	25 48.0	....	....
	W.	S.	2	37 3.1	37 30.3	37 59.2	38 28.3	38 58.5	39 25.2	39 52.9	40 20.6	....	40 47.9	....	....
		N.	2	46 21.0	45 57.2	45 34.5	45 9.6	44 44.7	44 20.8	43 56.4	43 30.5	....	43 7.4	....	....
6	E.	N.	1	....	....	21 13.0	21 36.4	22 2.0	22 25.3	22 51.0	23 15.0	....	23 41.5	....	....
		S.	1	....	....	28 49.0	28 19.9	27 51.1	27 21.6	26 55.0	26 25.9	....	26 1.2	....	....
	W.	S.	2	....	....	37 48.7	38 17.1	38 46.0	39 13.3	39 42.7	40 10.6	....	40 36.1	....	....
		N.	2	....	....	45 24.9	45 0.3	44 34.4	44 12.1	43 45.9	43 21.1	....	42 55.4	....	....
6	E.	S.	2	....	....	....	11 4.9	11 26.2	11 49.5	12 11.0	12 33.8	....	12 55.5	....	....
		N.	2	....	....	....	16 51.8	16 28.1	16 2.3	15 37.2	15 13.1	....	14 51.2	....	....
	W.	N.	3	....	....	....	37 31.9	37 54.9	38 20.7	38 46.4	39 9.4	....	39 33.3	....	....
		S.	3	....	....	....	43 19.5	42 57.9	42 34.7	42 11.7	41 48.0	....	41 27.9	....	....
9	E.	N.	1	20 18.7	20 43.0	21 6.5	21 30.4	21 55.4	22 19.0	22 43.0	23 9.0	....	....	....	....
		S.	1	29 38.5	29 9.1	28 39.9	28 11.3	27 41.4	27 15.0	26 47.4	26 18.5	....	....	....	....
	W.	S.	2	37 6.4	37 36.4	38 5.7	38 34.4	39 3.5	39 30.5	39 59.3	40 27.5	....	....	....	....
		N.	2	46 28.4	46 4.0	45 40.5	45 17.0	44 51.9	44 27.9	44 3.7	43 37.4	....	....	....	....
9	E.	N.	1	....	20 54.2	21 17.0	21 41.7	22 6.9	22 29.5	22 55.4	23 20.9	....	....	....	....
		S.	1	....	29 22.4	28 54.5	28 24.2	27 55.5	27 28.2	27 0.0	26 31.1	....	....	....	....
	W.	S.	2	....	37 24.6	37 53.6	38 23.5	38 52.1	39 20.4	39 47.4	40 16.4	....	....	....	....
		N.	2	....	45 55.0	45 31.4	45 7.1	44 42.4	44 18.0	43 54.0	43 27.4	....	....	....	....
9	E.	S.	2 9 41.3	10 3.7	10 25.4	10 48.3	11 11.0	11 31.6	11 54.5	....	....	....	....	....	....
		N.	2 18 42.5	18 15.6	17 49.3	17 22.5	16 56.6	16 32.8	16 7.5	....	....	....	....	....	....
	W.	N.	3 35 51.5	36 18.0	36 45.1	37 11.3	37 37.0	38 2.0	38 26.6	....	....	....	....	....	....
		S.	3 44 53.8	44 30.9	44 9.4	43 46.7	43 24.6	43 2.3	42 40.8	....	....	....	....	....	....
9	E.	N.	2 51 53.6	52 8.7	52 24.0	52 38.4	52 53.7	53 8.5	53 22.6	53 37.5	53 53.4	....	....	....	....
		S.	2 57 53.0	57 36.7	57 20.5	57 4.9	56 48.7	56 31.9	56 16.9	56 1.3	55 45.2	....	....	....	....
	W.	S.	5 3 0.6	3 16.3	3 33.1	3 48.4	4 4.7	4 20.4	4 36.4	4 51.5	5 8.0	....	....	....	....
		N.	5 8 59.9	8 44.0	8 29.0	8 15.2	8 0.5	7 44.9	7 30.4	7 14.7	6 59.0	....	....	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
α Lyræ........	195.9	186.7	−0.581	−0.562	+38 40 41.48	− 9.73	+38 40 31.75	B.	Very unsteady at times.
	188.8	188.7							
	184.0	185.2	−0.550						Unsteady.
	188.0	178.0							
32 Andromedæ .	186.1	190.2	−0.094	−0.025	38 49 32.09	−33.53	38 48 58.56	T.	Good image; unsteady.
	191.8	186.2							
	192.0	186.6	+0.044						Fair image; not steady.
	186.8	192.9							
μ Andromedæ .	189.8	183.5	−0.038	+0.031	37 52 24.51	−32.40	37 51 52.11	T.	Good image.
	184.7	190.4							
	187.4	194.6	+0.100						Good image.
	194.3	188.7							
α Lyræ........	180.0	194.8	+0.681	+0.711	38 40 41.19	− 9.40	38 40 31.79	T.	Very bad seeing; much diffuse; unsteady.
	189.2	185.3							
	187.2	185.2	+0.750						Much better seeing; somewhat diffuse.
	179.0	193.0							
32 Andromedæ .	174.4	183.6	+0.350	+0.427	38 49 32.11	−33.44	38 48 58.67	B.	Faint at times; light clouds.
	183.6	180.0							
	185.5	182.4	+0.506						Light clouds; occasionally faint.
	180.5	191.7							
59 Andromedæ .	183.6	192.4	+0.194	+0.226	38 29 38.41	−26.51	38 29 11.90	B.	Tolerable seeing; very thin clouds.
	192.0	186.3							
	195.7	191.0	+0.263						Better seeing; clear.
	189.4	198.3							
ρ Persei.......	187.4	196.2	+0.163	+0.167	38 23 29.42	−20.24	38 23 9.18	B.	Good seeing; good image.
	195.5	189.3							
	197.7	192.9	+0.175						Seeing growing poor; light hazy clouds.
	192.0	199.6							
32 Andromedæ .	231.2	232.8	−0.150	−0.218	38 49 31.45	−33.24	38 48 58.21	T.	Fair image.
	236.8	232.8							
	238.4	233.6	−0.300						Fair image.
	237.2	237.2							
μ Andromedæ .	225.2	217.6	−0.225	−0.342	37 52 24.28	−32.14	37 51 52.14	T.	Very poor seeing; diffuse and unsteady.
	227.2	231.2							
	242.4	240.4	−0.448						Good image.
	244.9	239.1							
59 Andromedæ .	239.4	238.4	−0.550	−0.553	38 29 38.63	−26.45	38 29 12.18	T.	Good image; not quite steady.
	244.4	236.6							
	246.7	241.3	−0.600						Good image; pen bad.
	246.6	242.4							
B. A. C. 662 ..	239.4	238.4	−0.550	−0.553	38 29 52.26	−26.46	38 29 25.80	T.	Good image; not quite steady.
	244.4	236.6							
	246.7	241.3	−0.600						Good image; pen bad.
	246.6	242.4							
ρ Persei.......	247.2	237.6	−0.981	−0.792	38 23 29.59	−20.25	38 23 9.34	T.	Blazing.
	246.2	240.1							
	248.8	244.0	−0.669						Blazing.
	249.8	243.9							
59 Andromedæ .	221.6	227.5	−0.431	−0.443	38 29 37.27	−26.42	38 29 10.85	B.	Fair seeing.
	231.3	218.5							
	232.0	220.0	−0.481						Good seeing.
	224.0	228.3							
B. A. C. 662 ..	221.6	227.5	−0.431	0.443	38 29 51.33	−26.42	38 29 24.91	B.	Fair seeing.
	231.3	218.5							
	232.0	220.0	−0.481						Good seeing.
	224.0	228.3							
ρ Persei.......	232.4	217.9	−0.769	−0.615	38 23 29.63	−20.30	38 23 9.33	B.	Good seeing.
	224.2	226.4							
	227.7	231.5	−0.500						Fair seeing; passing clouds obscured at times.
	236.5	224.7							
50 Persei.......	226.1	226.8	−0.806	−0.683	+37 44 7.22	−11.48	+37 43 55.74	B.	A little faint; good image; light passing clouds.
	233.6	220.0							
	239.6	228.9	−0.613						Fair image; light passing clouds.
	234.1	235.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1884			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Jan. 9	E.	S.	8	....	....	....	....	....	41 32.3	42 3.6	42 36.9	42 52.7	43 9.7	43 26.3	43 43.2
		N.	8	....	....	....	....	....	47 58.1	47 19.2	46 39.8	46 20.5	46 2.8	45 44.7	45 25.7
	W.	N.	9	....	....	....	....	....	38 33.9	39 12.3	39 51.1	40 10.9	40 27.7	40 45.3	41 4.9
		S.	9	....	....	....	....	....	44 59.6	44 26.4	43 55.3	43 40.1	43 21.6	43 4.9	42 46.8
9	E.	N.	7 58 45.2	58 56.8	59 7.8	....	....	59 42.9	59 54.0	0 5.9	0 17.3	....	....	....	....
		S.	8 3 18.8	3 6.3	2 54.4	....	....	2 18.0	2 6.6	1 54.3	1 42.7	....	....	....	....
	W.	S.	10 50 0.6	50 13.9	50 25.5	....	....	51 1.9	51 12.9	51 25.5	51 37.6	....	....	....	....
		N.	10 54 35.1	54 24.3	54 11.7	....	....	53 38.0	53 25.5	53 14.0	53 2.0	....	....	....	....
9	E.	N.	9	1 29.8	1 43.4	....	2 7.7	2 20.8	....	2 46.6	....	....	....	....	....
		S.	9	6 8.9	5 54.9	....	5 28.7	5 15.0	....	4 48.6	....	....	....	....	....
	W.	S.	11	35 17.5	35 32.2	....	35 58.0	36 11.7	....	36 38.3	....	....	....	....	....
		N.	11	39 56.5	39 44.1	....	39 18.4	39 6.2	....	38 39.3	....	....	....	....	....
9	E.	S.	9	....	....	50 31.9	50 56.8	51 20.4	51 45.9	52 11.4	52 38.1	....	53 0.7	53 13.2	....
		N.	9	....	....	58 3.4	57 32.9	57 5.3	56 34.9	56 7.7	55 38.0	....	55 12.2	54 58.8	....
	W.	N.	11	....	....	6 1.5	6 30.1	6 56.8	7 28.8	7 56.9	8 25.5	....	8 49.6	9 5.8	....
		S.	11	....	....	13 32.8	13 7.6	12 44.6	12 18.8	11 52.1	11 28.2	....	11 1.4	10 49.6	....
13	E.	S.	8	....	....	....	40 27.5	40 56.8	41 30.3	42 1.7	42 35.6	42 52.4	43 8.8	43 25.3	43 41.9
		N.	8	....	....	....	49 14.6	48 34.3	47 51.5	47 12.7	46 35.6	46 17.9	45 59.6	45 40.9	45 22.6
	W.	N.	9	....	....	....	37 12.6	37 51.6	38 33.0	39 13.6	39 52.3	40 10.8	40 28.8	40 47.5	41 6.0
		S.	9	....	....	....	45 59.3	45 29.8	44 57.0	44 23.7	43 52.3	43 36.3	43 19.0	43 2.4	42 45.4
13	E.	N.	7 57 55.8	58 19.1	58 42.0	58 53.9	59 5.6	59 17.0	59 28.3	59 40.6	59 52.0	0 3.2	0 15.4	....	....
		S.	8 4 6.0	3 41.7	3 17.0	3 4.6	2 52.6	2 40.9	2 29.0	2 16.7	2 4.9	1 53.1	1 41.2	....	....
	W.	S.	10 49 10.7	49 35.2	49 59.2	50 12.0	50 24.0	50 36.1	50 47.9	50 59.8	51 11.2	51 23.1	51 35.0	....	....
		N.	10 55 19.8	54 56.6	54 34.0	54 21.9	54 10.4	53 59.6	53 47.9	53 35.6	53 24.7	53 12.9	53 1.4	....	....
13	E.	N.	9 1 13.7	1 27.4	1 41.0	1 52.5	2 5.7	2 18.4	2 31.1	2 43.8	2 57.4	....	....	....	....
		S.	9 6 20.5	6 6.4	5 53.0	5 39.7	5 26.0	5 12.5	4 59.5	4 45.9	4 32.8	....	....	....	....
	W.	S.	11 35 2.0	35 16.4	35 29.6	35 43.0	35 56.1	36 10.0	36 22.5	36 36.0	36 50.2	....	....	....	....
		N.	11 40 8.0	39 55.1	39 42.2	39 30.0	39 17.6	39 4.1	38 51.4	38 38.2	38 25.1	....	....	....	....
13	E.	S.	9	....	....	....	....	51 17.7	51 43.4	52 9.2	52 33.9	52 46.4	52 59.9	53 12.8	53 26.0
		N.	9	....	....	....	....	57 1.4	56 32.9	56 3.4	55 34.8	55 21.6	55 8.6	54 55.4	54 42.5
	W.	N.	11	....	....	....	....	6 57.3	7 26.4	7 55.0	8 22.9	8 36.4	8 49.8	9 3.6	9 17.0
		S.	11	....	....	....	....	12 42.2	12 15.8	11 50.2	11 25.0	11 12.6	10 59.4	10 47.4	10 34.3
13	E.	S.	12	....	....	4 49.5	5 6.7	5 22.9	5 41.0	5 58.9	6 15.7	6 23.8	6 33.8	....	....
		N.	12	....	....	9 50.9	9 31.6	9 14.0	8 55.5	8 36.5	8 17.8	8 9.5	8 0.5	....	....
	W.	N.	13	....	....	57 43.6	58 2.7	58 19.3	58 38.0	58 57.9	59 16.4	59 25.4	59 34.5	....	....
		S.	14	....	....	2 45.9	2 27.9	2 11.1	1 53.3	1 35.6	1 18.4	1 9.4	1 0.6	....	....
13	E.	N.	12	....	....	....	22 34.0	22 49.5	23 3.9	23 19.2	23 36.1	23 43.5	23 51.1	....	....
		S.	12	....	....	....	26 33.5	26 16.7	26 1.0	25 45.5	25 29.5	25 21.8	25 14.4	....	....
	W.	S.	14	....	....	....	31 38.5	31 54.7	32 11.0	32 26.6	32 42.6	32 51.0	32 58.7	....	....
		N.	14	....	....	....	35 37.8	35 22.9	35 7.7	34 52.9	34 37.6	34 30.0	34 22.2	....	....
13	E.	S.	14	....	....	....	....	....	4 47.6	5 32.6	6 23.8	6 48.9	7 12.5	7 38.0	8 4.8
		N.	14	....	....	....	....	....	15 46.0	14 19.7	13 5.4	12 29.6	11 53.8	11 20.9	10 49.3
	W.	N.	14	....	....	....	....	....	37 50.8	39 22.5	40 38.5	41 14.3	41 48.5	42 19.9	42 51.8
		S.	14	....	....	....	....	....	48 57.0	48 9.6	47 21.4	46 55.8	46 30.8	46 5.0	45 37.7
16	E.	N.	17	....	58 41.8	59 9.4	59 41.0	0 13.2	0 45.0	1 14.8	....	....	2 21.0	....	2 58.4
		S.	18	....	10 22.4	9 37.5	8 53.8	8 10.8	7 30.4	6 50.2	....	....	5 34.8	....	4 55.6
	W.	S.	18	....	54 29.1	55 14.0	55 57.5	56 41.4	57 21.4	58 0.3	....	....	59 18.7	....	59 58.6
		N.	19	....	6 12.4	5 42.7	5 11.7	4 40.2	4 10.0	3 36.4	....	....	2 30.8	....	1 55.1
17	E.	N.	1 19 50.4	20 15.9	20 38.3	21 2.2	21 26.3	21 51.7	22 15.4	22 39.9	23 5.6	....	....	....	....
		S.	1 30 7.4	29 36.5	29 5.7	28 37.3	28 7.9	27 38.9	27 11.7	26 43.6	26 16.2	....	....	....	....
	W.	S.	2 36 32.4	37 4.0	37 32.7	38 2.0	38 30.7	38 59.7	39 28.0	39 53.9	40 22.7	....	....	....	....
		N.	2 46 48.3	46 24.6	46 1.3	45 35.3	45 12.9	44 48.8	44 25.8	43 57.9	43 33.2	....	....	....	....
17	E.	N.	1 20 1.9	20 26.5	20 50.2	21 13.2	21 37.5	22 1.3	22 26.1	22 51.4	23 17.1	....	....	....	....
		S.	1 30 20.3	29 49.8	29 19.1	28 50.3	28 21.8	27 51.7	27 24.4	26 55.9	26 27.9	....	....	....	....
	W.	S.	2 36 19.6	36 51.5	37 21.1	37 50.3	38 17.0	38 49.0	39 15.6	39 43.9	40 12.7	....	....	....	....
		N.	2 46 40.0	46 15.6	45 51.2	45 28.4	45 3.9	44 37.9	44 16.5	43 49.6	43 23.7	....	....	....	....
17	E.	S.	2	9 59.5	10 21.1	10 44.8	11 7.0	11 27.9	11 50.5	12 13.4	12 36.3	....	12 58.6	....	....
		N.	2	18 12.1	17 45.8	17 17.9	16 53.0	16 29.7	16 4.4	15 39.0	15 14.2	....	14 52.7	....	....
	W.	N.	3	36 12.2	36 40.8	37 6.2	37 33.0	37 56.6	38 22.3	38 47.9	39 11.9	....	39 34.9	....	....
		S.	3	44 28.0	44 6.0	43 42.9	43 20.9	43 0.1	42 36.3	42 13.3	41 50.9	....	41 28.8	....	....
17	E.	N.	2 51 50.5	52 4.7	52 19.8	52 34.2	52 49.9	53 4.5	53 19.7	53 34.5	53 50.4	....	54 4.0	....	....
		S.	2 57 48.4	57 32.1	57 16.6	57 0.1	56 45.1	56 28.4	56 12.0	55 57.5	55 42.0	....	55 25.8	....	....
	W.	S.	5 2 56.5	3 12.8	3 28.7	3 45.0	4 0.1	4 16.9	4 31.5	4 47.7	5 3.8	....	5 18.3	....	....
		N.	5 8 55.8	8 40.1	8 25.4	8 10.6	7 56.2	7 40.4	7 26.0	7 10.8	6 54.7	....	6 40.0	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ' "	"	° ' "		
Lalande 18362	243.2	232.8	−0.925	−1.008	+38 40 25.94	+32.40	+38 40 58.34	T.	Diffuse; unsteady; bright moonlight.
	240.7	236.3							
	242.2	234.4	−1.163						Diffuse and unsteady.
	244.0	233.2							
10 Leonis Min..	238.8	237.7	−0.681	−0.733	36 54 25.37	+33.32	36 54 58.69	T.	Good seeing; bright moonlight.
	242.9	233.1							
	244.7	234.4	−0.863						Diffuse and unsteady.
	243.6	240.1							
31 Leonis Min..	240.6	236.6	−1.000	−1.128	37 17 45.79	+36.80	37 18 22.59	T.	Fair image.
	244.8	232.8							
	249.2	236.3	−1.369						Bad pen.
	247.4	238.4							
38 Leonis Min..	244.6	232.6	−0.863	−0.975	38 30 32.52	+37.50	38 31 10.02	T.	Fair image.
	240.0	238.2							
	245.4	238.6	−1.163						Diffuse and unsteady; bright moonlight.
	248.6	236.8							
Lalande 18362	198.3	187.6	−0.519	−0.495	38 40 25.64	+32.28	38 40 57.92	B.	Tolerable seeing and image; bright moon.
	192.0	194.4							
	192.7	194.9	−0.481						Better seeing; bright moon.
	198.8	188.9							
10 Leonis Min..	190.0	194.2	−0.350	−0.429	36 54 25.04	+33.28	36 54 58.32	B.	Fair seeing; bright moonlight; transits over threads A to IX.
	197.1	187.3							
	200.6	189.2	−0.531						Fair image; bright moonlight; very thin clouds.
	194.3	197.2							
31 Leonis Min..	191.6	195.5	−0.463	−0.486	37 17 45.46	+36.92	37 18 22.38	B.	Fair seeing; bright moon.
	199.2	187.9							
	202.0	190.0	−0.531						Tolerable image; thin clouds; moon.
	194.5	198.0							
38 Leonis Min..	200.0	188.0	−0.581	−0.519	38 30 32.44	+37.64	38 31 10.08	B.	Fair seeing; bright moon.
	192.7	195.4							
	194.4	197.6	−0.469						Tolerable image; moon; clouds.
	201.2	190.5							
B. A. C. 4407 .	203.0	190.7	−0.644	−0.630	38 2 12.62	+36.19	38 2 48.81	B.	Tolerable seeing; very thin clouds.
	196.0	198.0							
	198.4	200.4	−0.638						Tolerable seeing; thin clouds; moon.
	205.7	193.5							
17 H. Canum Venaticorum.	196.0	197.9	−0.631	−0.701	37 46 21.19	+34.40	37 46 55.59	B.	Tolerable image; thin clouds.
	203.0	191.0							
	205.6	193.8	−0.800						Fair image; thin clouds; moon.
	200.5	199.5							
γ Bootis	205.2	194.0	−0.763	−0.747	38 48 44.95	+29.30	38 49 14.25	B.	Poor image; diffuse; thin clouds.
	200.5	199.5							
	200.2	199.4	−0.750						Fair image; light clouds; broad day; moon low.
	205.1	193.9							
α Lyræ........	210.8	227.1	+0.475	+0.299	38 40 36.92	− 5.40	38 40 31.52	B.	Good image; steady; thin clouds.
	225.1	216.4							
	222.1	215.0	+0.138						Tolerable image; rather unsteady; light clouds.
	212.3	221.6							
59 Andromedæ .	214.7	221.8	0.088	−0.107	38 29 37.89	−26.37	38 29 11.52	T.	Good image.
	222.9	214.4							
	225.3	216.7	−0.131						Bad seeing; diffuse.
	218.0	224.5							
B. A. C. 662 ..	214.7	221.8	−0.088	−0.107	38 29 51.57	−26.37	38 29 25.20	T.	Good image.
	222.9	214.4							
	225.3	216.7	−0.131						Bad seeing; diffuse.
	218.0	224.5							
ρ Persei	226.8	214.6	−0.406	−0.277	38 23 30.22	−20.60	38 23 9.62	T.	Blazing.
	218.0	223.7							
	219.9	226.1	−0.163						Fair image.
	227.8	219.0							
50 Persei	218.8	223.3	−0.394	−0.381	+37 44 7.84	−12.08	+37 43 55.76	T.	Poor seeing.
	227.4	216.6							
	231.1	220.9	−0.394						Good seeing.
	224.5	228.4							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s.	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s.
1884 Jan. 17	E.	S.	4	15 57.6	16 17.5	16 39.1	17 0.9	17 22.0	17 44.2	18 5.9	18 28.0	....	18 48.9	....	19 10.5
		N.	4	23 48.3	23 23.3	22 58.1	22 33.1	22 11.3	21 46.3	21 21.8	21 0.3	....	20 38.5	....	20 16.0
	W.	N.	5	46 10.7	46 34.9	47 0.4	47 25.3	47 47.5	48 11.9	48 35.5	48 58.7	....	49 20.8	....	49 42.6
		S.	5	54 2.5	53 40.9	53 17.6	52 56.9	52 36.4	52 14.4	51 52.3	51 30.8	....	51 9.8	....	50 48.5
17	E.	N.	8	....	....	39 47.9	40 19.3	40 50.2	41 21.7	41 51.3	42 25.9	42 42.4	42 59.4	43 16.5	43 34.7
		S.	8	....	....	50 8.9	49 25.8	48 42.3	48 2.3	47 21.2	46 43.0	46 24.5	46 5.8	45 48.0	45 29.4
	W.	S.	9	....	....	36 15.1	36 59.0	37 41.2	38 22.1	38 59.6	39 41.5	39 58.0	40 16.5	40 36.8	40 58.4
		N.	9	....	....	46 35.3	46 5.3	45 33.6	45 2.8	44 30.5	43 58.5	43 40.9	43 24.5	43 6.1	42 48.9
17	E.	S.	7 58 41.4	58 53.5	59 5.5	59 17.3	59 29.3	59 40.9	....	....	....	....	....	....	....
		N.	8 3 14.4	3 1.8	2 49.5	2 36.0	2 23.6	2 12.9	....	....	....	....	....	....	....
	W.	N.	10 49 58.7	50 11.4	50 23.0	50 36.5	50 48.4	51 0.5	....	....	....	....	....	....	....
		S.	10 54 31.4	54 17.8	54 6.7	53 55.5	53 42.8	53 31.8	....	....	....	....	....	....	....
17	E.	S.	9 0 47.7	1 14.0	1 26.3	1 40.5	1 53.5	2 7.3	2 19.7	2 33.3	2 45.8	2 58.5	....	....	....
		N.	9 6 45.6	6 17.6	6 3.0	5 49.5	5 35.0	5 21.6	5 8.6	4 54.5	4 41.3	4 27.8	....	....	....
	W.	N.	11 34 34.3	35 1.6	35 15.4	35 29.5	35 43.5	35 57.8	36 9.9	36 23.7	36 37.3	36 50.8	....	....	....
		S.	11 40 31.2	40 5.0	39 52.2	39 39.0	39 24.8	39 12.0	38 59.8	38 45.8	38 33.0	38 20.6	....	....	....
17	E.	N.	9	....	....	50 21.7	50 44.2	51 11.4	51 36.0	51 59.7	52 25.4	52 40.2	52 52.3	53 7.0	....
		S.	9	....	....	58 5.0	57 35.2	57 5.3	56 37.6	56 10.7	55 40.9	55 27.6	55 14.7	54 59.2	....
	W.	S.	11	....	....	5 50.7	6 20.5	6 49.9	7 17.7	7 46.0	8 13.5	8 29.7	8 43.5	8 57.6	....
		N.	11	....	....	13 33.9	13 10.1	12 45.1	12 20.1	11 54.8	11 28.9	11 17.0	11 5.5	10 51.0	....
20	E.	S.	9 1 12.5	1 25.4	1 37.3	1 50.6	2 5.1	2 17.3	2 30.7	2 43.2	2 56.4	....	....	....	....
		N.	9 6 17.9	6 3.4	5 51.0	5 35.4	5 22.7	5 9.7	4 55.6	4 41.1	4 27.8	....	....	....	....
	W.	N.	11 35 0.1	35 13.4	35 27.0	35 41.7	35 55.1	36 8.3	36 21.7	36 36.0	36 49.4	....	....	....	....
		S.	11 40 5.1	39 51.6	39 37.9	39 24.6	39 11.6	38 59.2	38 46.2	38 32.9	38 19.3	....	....	....	....
20	E.	N.	9	....	49 59.0	50 21.4	50 46.0	51 10.9	51 37.1	52 1.8	52 28.6	52 41.9	52 53.2	53 6.2	53 19.7
		S.	9	....	58 34.8	58 4.6	57 34.6	57 5.2	56 36.8	56 8.6	55 40.3	55 27.0	55 13.0	54 57.8	54 44.7
	W.	S.	11	....	5 20.1	5 49.2	6 18.7	6 48.6	7 16.7	7 45.8	8 13.8	8 27.0	8 41.4	8 54.6	9 10.5
		N.	11	....	13 57.3	13 32.7	13 8.3	12 43.6	12 18.8	11 52.9	11 28.0	11 15.0	11 2.6	10 48.7	10 34.7
20	E.	N.	12	....	....	4 43.6	5 1.1	5 18.3	5 35.7	5 53.0	6 11.4	....	....	....	....
		S.	12	....	....	9 50.9	9 33.6	9 13.8	8 55.8	8 38.5	8 18.3	....	....	....	....
	W.	S.	13	....	....	57 38.0	57 56.6	58 14.5	58 33.9	58 52.1	59 10.2	....	....	....	....
		N.	14	....	....	2 45.7	2 28.5	2 11.3	1 54.4	1 36.8	1 18.0	....	....	....	....
20	E.	N.	14	....	....	....	....	....	4 33.4	5 21.0	6 9.0	6 35.3	6 56.5	7 24.6	7 54.8
		S.	14	....	....	....	....	....	16 10.8	14 38.2	13 16.5	12 41.0	12 10.4	11 32.9	11 0.1
	W.	S.	14	....	....	....	....	....	37 33.5	38 58.9	40 22.0	41 0.3	41 30.6	42 8.3	42 41.6
		N.	14	....	....	....	....	....	49 3.1	48 17.1	47 28.2	47 5.0	46 39.6	46 12.8	45 43.4
20	E.	N.	17 58 4.9	58 33.7	59 3.2	59 33.4	0 4.0	0 36.1	1 8.4	1 39.7	2 14.9	....	2 44.7	....	3 22.5
		S.	18 12 22.7	11 30.9	10 45.5	10 1.9	9 18.6	8 32.9	7 53.8	7 12.1	6 33.5	....	5 56.9	....	5 16.7
	W.	S.	18 53 11.9	54 4.1	54 50.5	55 35.8	56 19.2	57 1.2	57 42.3	58 20.4	59 1.4	....	59 39.7	....	0 17.7
		N.	19 7 32.0	7 1.9	6 32.8	6 1.8	5 32.0	5 1.3	4 29.7	3 57.1	3 23.9	....	2 51.6	....	2 14.3
21	E.	N.	1	20 34.9	21 0.6	21 23.5	21 48.8	22 13.0	22 35.9	23 0.9	23 26.0	....	23 50.7	....	....
		S.	1	29 57.7	29 27.0	28 57.4	28 29.7	27 59.7	27 33.0	27 4.1	26 36.0	....	26 12.0	....	....
	W.	S.	2	37 25.0	37 54.1	38 23.5	38 53.2	39 22.0	39 48.4	40 15.5	40 46.3	....	41 10.1	....	....
		N.	2	46 43.4	46 20.6	45 57.0	45 32.5	45 7.8	44 45.0	44 19.2	43 53.4	....	43 29.0	....	....
21	E.	N.	1	20 47.5	21 11.5	21 34.1	21 59.3	22 22.4	22 47.7	23 13.0	23 39.0	....	24 3.0	....	....
		S.	1	30 10.5	29 40.1	29 11.1	28 43.9	28 13.0	27 44.1	27 17.6	26 48.7	....	26 22.6	....	....
	W.	S.	2	37 13.0	37 43.0	38 11.0	38 40.8	39 10.0	39 36.4	40 5.5	40 32.9	....	40 59.4	....	....
		N.	2	46 34.9	46 9.6	45 48.1	45 24.0	44 59.0	44 34.8	44 10.8	43 44.4	....	43 20.2	....	....
21	E.	S.	2 9 58.1	10 19.4	10 42.3	11 5.7	11 26.9	11 48.0	12 11.6	12 34.6	12 57.0	....	....	13 30.6	....
		N.	2 19 0.7	18 33.0	18 7.3	17 40.7	17 13.8	16 49.5	16 25.4	16 0.5	15 37.0	....	....	15 0.3	....
	W.	N.	3 36 6.4	36 33.1	36 59.2	37 28.5	37 54.4	38 18.0	38 43.2	39 8.0	39 31.7	....	....	40 7.5	....
		S.	3 45 11.7	44 49.0	44 27.1	44 3.2	43 41.2	43 20.2	42 57.9	42 35.2	42 13.1	....	....	41 38.4	....
21	E.	S.	2	....	52 42.3	52 58.1	53 14.0	53 28.6	53 43.6	53 59.0	54 14.4	....	....	....	....
		N.	2	....	57 35.2	57 18.0	57 1.0	56 46.4	56 30.2	56 13.6	55 59.8	....	....	....	....
	W.	N.	5	....	3 50.4	4 8.1	4 23.7	4 39.7	4 56.6	5 11.0	5 27.7	....	....	....	....
		S.	5	....	8 44.1	8 27.8	8 12.7	7 59.4	7 42.5	7 27.2	7 12.7	....	....	....	....
21	E.	S.	4	16 17.3	16 38.6	17 0.3	17 22.4	17 42.0	18 4.7	18 26.4	18 48.3	....	19 10.4	....	....
		N.	4	24 9.9	23 44.4	23 20.2	22 55.7	22 33.6	22 8.4	21 45.7	21 21.4	....	20 59.3	....	....
	W.	N.	5	46 27.5	46 52.9	47 18.3	47 45.0	48 6.7	48 32.4	48 55.5	49 18.7	....	49 40.0	....	....
		S.	5	54 22.1	54 0.0	53 36.9	53 16.5	52 55.5	52 34.5	52 12.3	51 51.0	....	51 29.9	....	....
21	E.	N.	8	....	....	....	....	41 12.3	....	42 18.4	42 49.5	43 5.6	43 21.8	43 41.2	43 59.1
		S.	8	....	....	....	....	49 5.2	....	47 42.8	47 4.3	46 45.5	46 27.1	46 8.7	45 46.8
	W.	S.	9	....	....	....	....	38 3.2	....	39 21.6	40 1.4	40 19.2	40 39.0	40 59.6	41 19.3
		N.	9	....	....	....	....	45 52.7	....	44 50.3	44 15.1	44 0.9	43 46.0	43 27.3	43 9.9

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
μ Aurigæ......	230.4	218.6	−0.506	−0.391	+38 20 42.11	− 2.56	+38 20 39.55	T.	Good seeing.
	223.1	226.8							
	224.7	230.4	−0.300						Fair seeing.
	233.3	222.8							
Lalande 18362	229.2	232.0	−0.500	−0.451	38 40 26.35	+31.91	38 40 58.26	B.	Tolerable seeing; faint; thin clouds.
	236.3	225.5							
	236.2	225.7	−0.431						Fair seeing; very thin clouds.
	229.2	232.8							
10 Leonis Min..	236.0	226.3	−0.394	−0.406	36 54 25.30	+32.98	36 54 58.28	B.	Fair seeing.
	228.9	232.3							
	230.2	233.0	−0.456						Poor image; clouds.
	236.8	226.7							
31 Leonis Min..	236.1	225.5	−0.463	−0.428	37 17 46.08	+36.76	37 18 22.84	B.	Tolerable seeing and image; thin clouds; transits over threads B to IX.
	229.0	232.2							
	230.5	233.5	−0.431						Tolerable seeing; moon.
	237.1	227.2							
38 Leonis Min..	230.0	232.1	−0.606	−0.463	38 30 32.47	+37.49	38 31 9.96	B.	Fair seeing.
	237.0	225.2							
	236.7	227.1	−0.350						Not good seeing; poor image; moon.
	230.0	234.0							
31 Leonis Min..	255.8	233.4	−1.575	−1.339	37 17 45.55	+36.64	37 18 22.19	B.	Tolerable seeing; image diffuse at times.
	248.8	246.0							
	267.8	259.4	−1.256						Image diffuse at times.
	268.5	256.8							
38 Leonis Min..	257.6	255.6	−1.338	−1.289	38 30 32.68	+37.37	38 31 10.05	B.	Good image; fairly steady.
	267.8	248.4							
	270.1	255.9	−1.369						Good seeing.
	267.6	259.9							
B. A. C. 4407.	267.6	255.7	−1.669	−1.591	38 2 11.80	+36.81	38 2 48.61	B.	Fair seeing and image.
	268.0	253.2							
	269.2	254.8	−1.688						Tolerable seeing.
	268.4	255.8							
γ Bootis.......	269.5	254.1	−1.913	−1.765	38 48 43.89	+30.44	38 49 14.33	B.	Tolerable seeing; image good deal diffuse; fresh wind.
	269.4	254.2							
	270.0	254.6	−1.788						Image diffuse; very thin clouds.
	269.2	256.0							
α Lyræ........	248.8	241.6	−1.406	−1.337	38 40 36.64	− 4.28	38 40 32.36	T.	Poor seeing; diffuse; unsteady.
	253.6	238.3							
	253.2	237.6	−1.375						Fair seeing.
	246.8	240.4							
59 Andromedæ .	240.1	238.3	−0.794	−0.822	38 29 37.35	−26.05	38 29 11.30	B.	Fair image; steady; light clouds.
	244.1	233.2							
	248.0	236.0	−0.913						Good seeing.
	243.8	241.2							
B. A. C. 662..	240.1	238.3	−0.794	−0.822	38 29 51.28	−26.06	38 29 25.22	B.	Fair image; steady; light clouds.
	244.1	233.2							
	248.0	236.0	−0.913						Good seeing.
	243.8	241.2							
ρ Persei.......	247.8	233.8	−1.088	−1.162	38 23 29.36	−20.45	38 23 8.91	B.	Good image generally; diffuse at times.
	243.4	240.0							
	244.4	243.7	−1.331						Good seeing.
	250.3	239.7							
50 Persei.......	248.4	237.0	−0.925	−0.835	37 44 7.87	−12.10	37 43 55.77	B.	Good seeing.
	244.3	240.9							
	248.8	246.9	−0.825						Good seeing.
	253.7	242.4							
μ Aurigæ......	251.9	239.9	−1.000	−0.862	38 20 42.99	− 2.71	38 20 40.28	B.	Pretty good seeing.
	248.2	244.2							
	251.0	248.3	−0.800						Good image at times; occasionally very unsteady.
	255.2	245.1							
Lalande 18362	257.3	252.5	−1.044	−1.034	+38 40 26.53	+31.64	+38 40 58.17	T.	Fair image.
	261.2	249.3							
	261.4	250.0	−1.119						Poor seeing.
	259.2	252.7							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1884			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Jan. 21	E.	S.	7 59 2.7	59 14.0	59 26.3	59 39.0	59 50.4	0 1.9	0 14.0	0 25.2	0 37.5	....	....	....	....
		N.	8 3 36.3	3 23.9	3 10.2	2 58.0	2 45.6	2 34.9	2 21.8	2 11.0	1 58.8	....	....	....	....
	W.	N.	10 50 18.1	50 31.5	50 43.6	50 55.4	51 8.1	51 20.0	51 32.8	51 44.0	51 56.2	....	....	....	....
		S.	10 54 52.2	54 40.7	54 28.2	54 17.0	54 4.7	53 53.9	53 41.6	53 29.7	53 17.3	....	....	....	....
21	E.	N.	9	....	....	....	....	....	51 58.9	52 22.9	52 48.9	53 1.3	53 13.0	53 27.2	53 42.7
		S.	9	....	....	....	....	....	56 58.7	56 32.3	56 0.1	55 48.6	55 35.4	55 20.3	55 6.5
	W.	S.	11	....	....	....	....	....	7 39.8	8 10.1	8 37.0	8 51.0	9 3.4	9 15.9	9 33.0
		N.	11	....	....	....	....	....	12 41.0	12 15.3	11 49.5	11 36.0	11 23.9	11 11.0	10 56.6
21	E.	S.	11	....	....	....	....	49 34.3	49 53.0	50 12.5	50 30.2	50 39.0	....	....	....
		N	11	....	....	....	....	53 39.3	53 20.5	53 0.2	52 41.1	52 31.3	....	....	....
	W.	N.	13	....	....	....	....	35 16.9	35 37.9	35 55.8	36 18.4	36 26.5	....	....	....
		S.	13	....	....	....	....	39 25.3	39 6.2	38 46.8	38 26.2	38 17.4	....	....	....
21	E.	N.	12	....	....	5 5.2	5 21.8	5 39.6	5 56.7	6 13.9	6 33.1	6 39.7	6 48.6	6 57.7	....
		S.	12	....	....	10 14.0	9 56.6	9 36.5	9 18.7	9 0.1	8 42.4	8 33.0	8 24.0	8 13.7	....
	W.	S.	13	....	....	57 59.4	58 18.2	58 36.3	58 53.0	59 14.0	59 32.0	59 39.7	59 47.6	59 58.4	....
		N.	14	....	....	3 9.9	2 52.3	2 33.4	2 16.3	2 0.4	1 40.7	1 31.7	1 25.3	1 15.7	....
21	E.	S.	12	....	22 25.4	22 41.9	22 57.8	23 12.2	23 27.9	23 43.7	23 58.2	24 7.0	....	....	....
		N.	12	....	27 23.2	27 5.9	26 49.8	26 34.3	26 16.9	26 1.4	25 45.0	25 38.2	....	....	....
	W.	N.	14	....	31 29.0	31 47.1	32 2.5	32 17.8	32 34.9	32 50.2	33 6.2	33 13.2	....	....	....
		S.	14	....	36 25.4	36 9.5	35 54.8	35 40.5	35 24.3	35 8.6	34 52.7	34 45.8	....	....	....
22	E.	N.	23 45 22.8	45 38.3	45 54.4	46 9.6	46 25.1	46 41.0	46 56.7	47 13.3	47 28.9	....	....	....	....
		S.	23 51 47.0	51 29.4	51 11.7	50 55.6	50 37.9	50 21.0	50 4.5	49 47.5	49 30.1	....	....	....	....
	W.	S.	1 48 29.0	48 46.4	49 4.0	49 21.0	49 37.6	49 55.6	50 11.5	50 28.3	50 46.0	....	....	....	....
		N.	1 54 52.0	54 36.5	54 20.4	54 5.5	53 49.9	53 33.4	53 17.9	53 2.0	52 45.3	....	....	....	....
22	E.	S.	1	20 39.8	21 3.5	21 29.4	21 53.7	22 16.6	22 42.2	23 7.1	23 32.5	....	....	....	....
		N.	1	29 52.3	29 21.5	28 50.1	28 20.7	27 54.0	27 24.8	26 56.8	26 29.4	....	....	....	....
	W.	N.	2	37 28.1	37 58.0	38 29.8	38 58.9	39 26.0	39 55.7	40 23.3	40 51.0	....	....	....	....
		S.	2	46 42.1	46 17.3	45 50.9	45 26.9	45 4.0	44 38.2	44 13.5	43 47.9	....	....	....	....
22	E.	S.	1 20 26.1	....	21 14.0	21 39.5	....	22 27.5	22 53.2	23 18.2	23 43.6	....	....	....	....
		N.	1 30 37.4	....	29 34.9	29 3.3	....	28 6.7	27 37.5	27 9.0	26 41.5	....	....	....	....
	W.	N.	2 36 44.5	....	37 46.7	38 16.8	....	39 14.9	39 44.5	40 12.6	40 40.8	....	....	....	....
		S.	2 46 56.1	....	46 8.0	45 42.4	....	44 54.4	44 29.5	44 3.0	43 38.6	....	....	....	....
22	E.	N.	2	10 16.9	10 38.5	10 58.8	11 21.6	11 43.9	12 5.0	12 27.3	12 51.1	....	13 12.8	....	....
		S.	2	18 36.2	18 10.0	17 44.9	17 20.9	16 54.2	16 30.2	16 6.3	15 41.5	....	15 18.3	....	....
	W.	S.	3	36 31.9	36 58.2	37 23.3	37 48.0	38 13.1	38 38.1	39 2.6	39 26.6	....	39 50.3	....	....
		N.	3	44 51.4	44 29.5	44 8.8	43 46.5	43 24.5	43 3.2	42 40.4	42 17.8	....	41 55.3	....	....
22	E.	S.	2 52 12.2	52 27.5	52 42.1	52 58.2	53 13.7	53 27.6	53 43.1	53 58.6	54 13.9	54 21.0	....	....	....
		N.	2 58 7.8	57 50.5	57 34.0	57 17.7	57 0.9	56 45.8	56 29.5	56 13.8	55 58.2	55 51.2	....	....	....
	W.	N.	5 3 18.2	3 35.2	3 51.7	4 8.4	4 25.0	4 39.7	4 55.6	5 11.7	5 27.7	5 34.9	....	....	....
		S.	5 9 13.9	8 58.5	8 43.2	8 27.7	8 12.1	7 58.2	7 42.2	7 27.1	7 12.0	7 4.5	....	....	....
22	E.	N.	4	16 15.0	16 34.8	16 55.6	17 16.5	17 38.5	17 58.5	18 20.4	18 43.2	....	19 3.1	....	....
		S.	4	24 10.8	23 46.8	23 23.6	22 59.3	22 35.4	22 12.2	21 49.3	21 24.7	....	21 3.9	....	....
	W.	S.	5	46 27.5	46 51.1	47 15.2	47 40.0	48 3.8	48 26.2	48 49.3	49 13.4	....	49 35.8	....	....
		N.	5	54 24.1	54 3.7	53 43.0	53 22.1	53 0.7	52 39.9	52 18.2	51 56.0	....	51 36.1	....	....
22	E.	N.	17	58 28.4	58 59.9	59 29.4	0 0.3	0 30.7	1 1.9	1 34.9	2 7.6	....	2 38.4	....	3 16.7
		S.	18	11 27.9	10 42.0	9 58.0	9 14.7	8 30.9	7 51.1	7 9.0	6 30.6	....	5 55.2	....	5 14.2
	W.	S.	18	54 3.9	54 49.6	55 35.1	56 17.0	57 2.0	57 41.9	58 21.9	59 1.7	....	59 39.0	....	0 19.0
		N.	19	7 3.9	6 33.2	6 3.9	5 34.0	5 3.0	4 31.5	3 59.4	3 24.6	....	2 52.9	....	2 15.6
23	E.	N.	2	....	10 37.6	10 58.7	11 19.8	11 42.6	12 3.5	12 27.0	12 50.0	....	13 11.4	....	....
		S.	2	....	18 9.3	17 44.0	17 18.1	16 53.4	16 29.3	16 5.3	15 39.9	....	15 17.4	....	....
	W.	S.	3	....	36 58.4	37 22.3	37 47.4	38 13.2	38 36.6	39 2.0	39 26.8	....	39 49.1	....	....
		N.	3	....	44 29.6	44 8.2	43 46.6	43 24.0	43 1.9	42 40.5	42 17.5	....	41 54.4	....	....
23	E.	N.	2 52 9.4	52 24.7	52 39.9	52 54.1	53 8.7	53 24.3	53 38.3	53 54.1	54 9.7	....	....	....	....
		S.	2 58 7.9	57 52.0	57 35.7	57 20.1	57 4.1	56 48.8	56 32.9	56 18.0	56 1.0	....	....	....	....
	W.	S.	5 3 16.0	3 32.0	3 48.0	4 4.3	4 20.0	4 36.1	4 51.0	5 6.7	5 23.3	....	....	....	....
		N.	5 9 15.7	9 0.0	8 45.5	8 30.7	8 16.3	8 1.0	7 45.8	7 30.6	7 15.1	....	....	....	....
23	E.	N.	4	16 13.3	16 34.8	16 56.0	17 16.8	17 38.4	17 58.5	18 20.1	18 43.0	....	19 4.0	....	....
		S.	4	24 10.4	23 46.3	23 21.7	22 58.1	22 34.9	22 11.4	21 48.6	21 23.5	....	21 3.1	....	....
	W.	S.	5	46 26.3	46 50.9	47 14.2	47 38.2	48 3.1	48 25.8	48 49.0	49 13.6	....	49 34.0	....	....
		N.	5	54 23.0	54 2.0	53 42.1	53 20.7	53 0.2	52 39.5	52 17.7	51 55.7	....	51 34.7	....	....
25	E.	N.	17	58 30.6	59 1.5	59 28.6	0 0.3	0 31.7	1 2.8	1 35.0	2 9.1	....	2 41.5	....	3 19.0
		S.	18	11 27.5	10 38.8	9 54.2	9 11.6	8 26.8	7 48.3	7 8.7	6 28.3	....	5 51.5	....	5 12.0
	W.	S.	18	54 1.7	54 49.2	55 36.7	56 19.6	57 1.9	57 43.0	58 23.1	59 2.4	....	59 38.0	....	0 20.5
		N.	19	7 1.6	6 33.3	6 3.4	5 33.0	5 1.0	4 29.6	3 57.0	3 24.4	....	2 52.0	....	2 16.0

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
10 Leonis Min . .	259.6	249.5	−0.831	−0.991	+36 54 25.76	+32.77	+36 54 58.53	T.	Poor seeing; diffuse.
	255.3	252.1							
	260.0	254.0	−1.275						Poor seeing; very diffuse at times.
	264.8	250.4							
38 Leonis Min . .	259.2	252.8	−1.175	−1.014	38 30 32.55	+37.36	38 31 9.91	T.	Fair image; diffuse at times.
	262.1	249.7							
	263.2	251.2	−0.950						Poor seeing; very much diffuse.
	259.2	256.0							
B. A. C. 4311.	264.8	250.0	−1.300	−1.081	38 8 35.75	+37.84	38 9 13.59	T.	Poor seeing; diffuse; lamp out.
	260.4	254.4							
	259.8	257.0	−0.975						Fair image.
	264.8	252.0							
B. A. C. 4407.	260.7	254.4	−1.344	−1.226	38 2 12.04	+36.90	38 2 48.94	T.	Poor seeing.
	265.2	250.0							
	265.3	251.1	−1.238						Poor seeing; very diffuse.
	260.8	255.2							
17 H. Canum	263.6	251.6	−1.125	−1.128	37 46 20.80	+35.29	37 46 56.09	T.	Poor seeing; lamp went out.
Venaticorum.	260.6	254.6							
	261.7	253.6	−1.256						Poor seeing; diffuse.
	263.2	251.2							
μ Andromedæ .	202.4	208.6	−0.088	−0.037	37 52 23.33	−30.70	37 51 52.63	B.	Very faint, but steady; thin clouds.
	208.8	201.2							
	218.0	212.2	+0.013						Good seeing.
	212.7	218.7							
59 Andromedæ .	217.4	209.6	−0.250	−0.134	38 29 37.79	−25.99	38 29 11.80	T.	Good seeing.
	213.2	217.0							
	215.1	219.3	0.025						Very faint; clouds.
	219.8	215.2							
B. A. C. 662. .	217.4	209.6	−0.250	−0.134	38 29 51.44	−25.99	38 29 25.45	T.	Good seeing.
	213.2	217.0							
	215.1	219.3	−0.025						Very faint; clouds.
	219.8	215.2							
ρ Persei	215.7	216.9	−0.431	−0.155	38 23 29.72	−20.42	38 23 9.30	T.	Good seeing.
	220.9	212.8							
	221.0	217.2	+0.113						Good seeing.
	216.6	222.2							
50 Persei	220.8	214.6	−0.263	−0.251	37 44 8.13	−12.11	37 43 56.02	T.	Faint at times; clouds.
	216.9	218.9							
	221.0	223.7	−0.256						Good seeing.
	225.8	219.0							
μ Aurigæ	218.6	222.0	−0.138	−0.122	38 20 42.31	− 2.75	38 20 39.56	T.	Good seeing.
	223.6	218.0							
	225.6	220.0	−0.113						Good seeing.
	221.4	225.2							
α Lyræ	216.8	225.8	+0.081	+0.027	38 40 35.63	− 3.77	38 40 31.86	T.	Good only at times; light, hazy clouds.
	222.4	214.7							
	218.4	211.0	−0.025						Very good image; quite steady; light clouds.
	208.8	215.8							
ρ Persei	203.5	204.1	−0.438	−0.344	38 23 29.07	−20.41	38 23 8.66	B.	Good seeing.
	207.5	199.9							
	212.5	204.5	−0.263						Pretty good seeing.
	207.2	211.0							
50 Persei	204.2	207.4	−0.369	−0.374	37 44 7.73	−12.13	37 43 55.60	B.	Good seeing.
	211.0	201.9							
	215.3	207.3	−0.400						Very faint at times through clouds.
	210.6	212.2							
μ Aurigæ	208.9	211.4	−9.394	−0.355	38 20 42.35	− 2.80	38 20 39.55	B.	Faint; steady; thin, passing clouds.
	214.8	206.0							
	215.6	208.4	−0.331						Good seeing.
	211.6	213.5							
α Lyræ	234.3	234.9	−0.788	−0.635	+38 40 34.94	− 2.92	+38 40 32.02	B.	Image diffuse and rather unsteady; light clouds.
	242.2	229.0							
	239.7	229.3	−0.525						Image diffuse and rather unsteady; light clouds.
	232.2	234.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1884			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Jan. 26	E.	N.	23 45 20.3	45 36.7	45 52.6	46 7.9	46 24.2	46 40.2	46 55.5	47 11.3	47 28.6	....	....	....	....
		S.	23 51 44.9	51 27.2	51 10.0	50 54.0	50 37.0	50 18.5	50 2.7	49 45.5	49 28.2	....	....	....	....
	W.	S.	1 48 28.3	48 45.8	49 2.8	49 19.8	49 37.1	49 53.9	50 10.8	50 27.4	50 44.6	....	....	....	....
		N.	1 54 51.4	54 34.8	54 18.9	54 4.0	53 48.2	53 32.1	53 16.5	53 0.5	52 43.9	....	....	....	....
26	E.	N.	2	10 15.1	10 37.0	10 58.7	11 19.3	11 42.3	12 3.4	12 27.5	12 50.0	....	13 10.9	....	....
		S.	2	18 35.8	18 8.0	17 43.4	17 17.3	16 51.9	16 28.9	16 4.2	15 40.6	....	15 16.3	....	....
	W.	S.	3	36 29.1	36 56.6	37 20.4	37 46.5	38 11.6	38 35.7	38 59.8	39 25.0	....	39 48.4	....	....
		N.	3	44 48.9	44 28.3	44 6.0	43 45.0	43 22.4	43 0.4	42 38.5	42 15.3	....	41 51.9	....	....
26	E.	S.	2 52 10.6	52 25.3	52 41.7	52 56.9	53 11.7	53 25.9	53 41.7	53 56.7	54 12.6	....	....	....	....
		N.	2 58 6.6	57 49.5	57 33.7	57 17.0	57 0.1	56 45.4	56 28.7	56 11.6	55 57.5	....	....	....	....
	W.	N.	5 3 16.0	3 33.0	3 49.6	4 6.3	4 22.5	4 36.9	4 54.5	5 9.5	5 25.5	....	....	....	....
		S.	5 9 12.7	8 57.2	8 41.9	8 25.9	8 11.3	7 56.9	7 41.9	7 26.0	7 10.8	....	....	....	....
26	E.	N.	4	16 14.0	16 35.0	16 55.3	17 16.6	17 38.7	17 59.1	18 20.0	18 42.0	....	19 3.8	....	19 27.1
		S.	4	24 9.8	23 46.0	23 23.2	22 58.4	22 33.9	22 10.3	21 47.0	21 23.5	....	21 1.1	....	20 36.1
	W.	S.	5	46 24.6	46 50.7	47 13.9	47 37.9	48 1.3	48 24.1	48 48.7	49 12.7	....	49 34.6	....	49 58.6
		N.	5	54 21.8	54 1.5	53 41.5	53 19.8	52 57.5	52 36.7	52 15.5	51 53.2	....	51 33.6	....	51 9.6
31	E.	S.	18	....	....	....	....	....	1 9.2	1 42.8	2 14.4	2 30.3	2 47.7	....	3 21.5
		N.	18	....	....	....	....	....	7 33.6	6 53.1	6 14.1	5 56.2	5 38.3	....	5 0.7
	W.	N.	18	....	....	....	....	....	57 54.3	58 34.3	59 13.9	59 32.0	59 49.3	....	0 26.8
		S.	19	....	....	....	....	....	4 18.8	3 45.1	3 13.0	2 56.9	2 39.9	....	2 5.4
Feb. 1	E.	N.	2 9 52.2	10 13.6	10 35.1	10 56.7	11 18.2	11 39.4	12 2.6	12 24.5	12 47.5	....	13 8.9	....	....
		S.	2 18 58.4	18 31.5	18 7.1	17 42.0	17 16.8	16 50.7	16 26.3	16 2.1	15 38.8	....	15 14.8	....	....
	W.	S.	3 36 0.3	36 25.1	36 52.0	37 18.7	37 43.2	38 9.4	38 33.4	38 57.6	39 21.9	....	39 45.0	....	....
		N.	3 45 8.1	44 46.0	44 22.6	44 2.3	43 40.8	43 18.9	42 56.3	42 33.6	42 10.8	....	41 49.3	....	....
1	E.	S.	2 52 7.8	52 22.8	52 37.5	52 53.2	53 9.1	53 23.4	53 39.7	53 54.2	54 9.7	....	....	....	....
		N.	2 58 5.0	57 47.0	57 31.7	57 14.3	56 58.8	56 42.7	56 27.2	56 11.0	55 54.4	....	....	....	....
	W.	N.	5 3 13.8	3 30.9	3 47.0	4 4.0	4 20.3	4 34.8	4 50.2	5 6.7	5 22.7	....	....	....	....
		S.	5 9 9.4	8 54.4	8 38.8	8 23.6	8 8.6	7 54.1	7 38.4	7 22.7	7 7.4	....	....	....	....
1	E.	S.	4	16 15.6	16 35.8	16 56.9	17 19.5	17 38.9	18 1.0	18 22.2	18 45.0	....	19 5.7	....	....
		N.	4	24 5.3	23 40.0	23 15.0	22 50.5	22 29.2	22 3.4	21 40.0	21 17.3	....	20 55.3	....	....
	W.	N.	5	46 24.2	46 50.0	47 15.5	47 40.6	48 2.0	48 28.7	48 51.5	49 13.2	....	49 35.5	....	....
		S.	5	54 15.7	53 54.3	53 33.5	53 10.7	52 50.8	52 28.7	52 7.8	51 45.0	....	51 23.7	....	....
1	E.	S.	5	....	15 37.1	16 3.6	....	16 49.0	17 16.0	17 40.4	18 6.0	18 18.3	18 28.1	18 41.4	....
		N.	5	....	23 52.1	23 21.3	....	22 26.3	21 56.6	21 28.4	21 1.4	20 49.9	20 35.5	20 21.8	....
	W.	N.	6	....	32 48.0	33 20.3	....	34 13.3	34 44.5	35 14.1	35 41.5	35 52.5	36 4.6	36 19.7	....
		S.	6	....	41 6.6	40 40.6	....	39 53.0	39 28.9	39 3.8	38 39.8	38 26.7	38 13.4	38 1.4	....
1	E.	S.	17 58 0.0	58 29.9	59 1.2	59 33.7	0 5.5	0 33.9	1 6.8	1 39.8	2 13.2	....	2 45.4	....	3 19.0
		N.	18 12 2.5	11 12.5	10 25.4	9 38.8	8 54.7	8 14.6	7 30.4	6 51.9	6 14.5	....	5 36.9	....	5 0.9
	W.	N.	18 53 24.2	54 13.8	55 0.0	55 47.2	56 32.2	57 12.6	57 53.1	58 34.8	59 13.5	....	59 51.1	....	0 27.9
		S.	19 7 25.8	6 54.9	6 24.5	5 52.9	5 20.9	4 51.4	4 19.4	3 45.5	3 12.8	....	2 42.3	....	2 6.9
2	E.	N.	2	52 21.2	52 35.9	52 50.7	53 4.4	53 20.4	53 34.9	53 49.5	54 5.4	....	54 20.0	....	....
		S.	2	57 49.5	57 33.6	57 18.2	57 2.1	56 46.0	56 30.7	56 15.1	55 58.7	....	55 44.1	....	....
	W.	S.	5	3 27.6	3 43.9	3 59.2	4 14.9	4 31.5	4 47.3	5 2.1	5 18.3	....	5 33.5	....	....
		N.	5	8 55.5	8 41.7	8 27.0	8 11.7	7 56.8	7 42.3	7 26.5	7 10.7	....	6 57.1	....	....
2	E.	S.	4	16 14.9	16 36.8	....	17 20.6	17 40.2	18 1.9	18 23.2	18 45.0	....	19 6.5	....	....
		N.	4	24 2.8	23 39.4	....	22 49.2	22 28.0	22 2.9	21 38.4	21 16.0	....	20 54.5	....	....
	W.	N.	5	46 26.1	46 50.5	....	47 40.2	48 2.9	48 26.5	48 50.8	49 14.3	....	49 34.6	....	....
		S.	5	54 14.7	53 55.1	....	53 10.9	52 50.4	52 29.2	52 6.7	51 44.3	....	51 23.3	....	....
2	E.	N.	5	....	15 31.8	15 55.9	16 17.5	16 42.6	17 6.6	17 31.7	17 58.3	....	18 21.9	....	18 49.6
		S.	5	....	23 57.3	23 28.4	22 56.8	22 31.9	22 4.1	21 35.9	21 7.8	....	20 42.7	....	20 12.8
	W.	S.	6	....	32 45.0	33 10.9	33 40.8	34 10.9	34 37.5	35 4.9	35 32.4	....	35 59.7	....	36 28.7
		N.	6	....	41 10.8	40 46.1	40 22.9	39 58.7	39 34.7	39 9.9	38 44.0	....	38 20.3	....	37 53.1
15	E.	N.	2	10 20.1	10 42.9	11 3.9	11 26.9	11 48.4	12 11.1	12 33.5	12 56.6	....	13 17.5	....	....
		S.	2	18 42.8	18 16.7	17 51.1	17 25.9	17 1.3	16 36.7	16 11.7	15 46.9	....	15 24.6	....	....
	W.	S.	3	36 35.8	37 2.4	37 27.7	37 55.6	38 18.7	38 40.7	39 5.0	39 31.5	....	39 53.6	....	....
		N.	3	44 57.1	44 35.2	44 12.5	43 48.1	43 28.5	43 7.9	42 44.5	42 21.4	....	42 0.7	....	....
15	E.	N.	4	16 22.3	16 43.9	17 2.5	17 23.9	17 45.3	18 6.2	18 29.2	18 50.8	....	19 11.3	....	....
		S.	4	24 18.7	23 54.5	23 32.3	23 7.1	22 42.6	22 20.6	21 54.8	21 33.1	....	21 9.5	....	....
	W.	S.	5	46 28.4	46 53.8	47 17.8	47 41.9	48 7.2	48 31.7	48 53.2	49 17.7	....	49 36.2	....	....
		N.	5	54 26.5	54 5.8	53 45.6	53 23.2	53 2.0	52 41.7	52 19.8	51 56.9	....	51 37.9	....	....
15	E.	S.	5	....	15 46.1	16 11.7	16 36.5	16 59.2	....	17 50.9	18 16.4	....	....	....	19 4.2
		N.	5	....	24 5.7	23 34.0	23 3.1	22 38.1	....	21 40.5	21 11.9	....	....	....	20 18.8
	W.	N.	6	....	32 54.2	33 26.0	33 55.0	34 23.9	....	35 18.5	35 49.1	....	....	....	36 39.8
		S.	6	....	41 13.3	40 51.9	40 24.8	40 2.6	....	39 11.8	38 45.6	....	....	....	37 57.6

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
μ Andromedæ .	218.8	223.2	−0.438	−0.351	+37 52 22.59	−30.32	+37 51 52.27	T.	Very faint.
	226.8	215.4							
	232.8	224.2	−0.288						Excellent image.
	227.2	231.2							
ρ Persei	230.6	229.4	0.613	0.520	38 23 29.83	−20.44	38 23 9.39	T.	Blazing.
	234.8	226.2							
	238.4	230.8	−0.463						Blazing.
	235.0	235.2							
50 Persei	237.0	227.0	0.625	−0.636	37 44 8.16	−12.28	37 43 55.88	T.	Fair seeing; at times diffuse.
	232.4	232.4							
	238.8	237.2	−0.700						Good seeing.
	243.2	233.6							
μ Aurigæ......	237.4	234.6	−0.738	−0.716	38 20 42.59	− 3.04	38 20 39.55	T.	Good seeing.
	241.6	232.6							
	246.4	236.4	−0.750						Good seeing.
	243.0	241.0							
α Lyræ........	201.2	186.8	−1.038	−1.274	38 40 33.29	− 1.12	38 40 32.17	T.	Fair seeing.
	195.4	193.2							
	206.4	200.2	−1.544						Good seeing.
	213.3	194.8							
ρ Persei	217.9	215.3	−1.600	−1.558	38 23 29.90	−20.29	38 23 9.61	B.	Image generally good; unsteady at times; thin clouds.
	228.3	205.3							
	232.0	210.4	−1.600						Image a good deal diffuse.
	224.0	220.0							
50 Persei	230.4	207.2	−1.788	−1.659	37 44 7.57	−12.46	37 43 55.11	B.	Image good, but not bright; thin clouds.
	222.5	217.1							
	227.6	221.6	−1.644						Fair seeing.
	235.4	215.1							
μ Aurigæ......	234.5	212.4	−1.881	−1.707	38 20 42.70	− 3.51	38 20 39.19	B.	Good seeing.
	228.0	220.0							
	228.8	223.2	−1.638						Tolerable seeing.
	237.1	216.5							
40 Aurigæ......	236.7	213.7	−2.075	−1.765	38 29 25.42	+ 4.44	38 29 29.86	B.	Not good seeing; poor image.
	230.5	220.3							
	230.2	225.6	1.563						Tolerable seeing.
	238.6	218.2							
α Lyræ........	225.2	206.8	−1.038	−0.998	38 40 32.77	− 0.87	38 40 31.90	T.	Fair seeing.
	217.5	219.3							
	217.1	218.6	−1.006						Woolly.
	226.4	208.8							
50 Persei	199.1	200.9	−1.113	−1.093	37 44 8.28	−12.43	37 43 55.85	T.	Good image.
	209.7	190.1							
	216.2	198.2	−1.125						Good image; somewhat diffuse at times.
	208.6	208.6							
μ Aurigæ......	212.0	190.0	−1.313	−1.266	38 20 43.13	− 3.54	38 20 39.59	T.	Diffuse.
	201.8	202.8							
	209.6	209.9	−1.269						Diffuse; not quite steady.
	221.0	200.4							
40 Aurigæ......	209.3	208.4	1.331	−1.263	38 29 25.30	+ 4.39	38 29 29.69	T.	Excellent image at times; then again diffuse.
	219.2	198.8							
	223.6	204.2	−1.250						Fair seeing.
	215.6	215.0							
ρ Persei	210.8	203.3	2.244	−2.314	38 23 28.43	−19.50	38 23 8.93	T.	Faint.
	221.6	193.2							
	229.2	201.4	−2.488						Very diffuse.
	222.0	210.0							
μ Aurigæ......	223.1	211.3	−2.663	−2.507	38 20 43.82	− 4.11	38 20 39.71	T.	Fair image; diffuse at times.
	233.6	202.8							
	238.0	210.1	−2.494						Diffuse.
	230.8	218.8							
40 Aurigæ......	237.2	206.8	−2.675	−2.526	+38 29 26.40	+ 3.40	+38 29 29.80	T.	Fair image; diffuse at times.
	229.0	216.6							
	233.4	219.8	−2.525						
	241.4	214.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1884			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Feb. 15	F.	S.	11	48 25.6	48 44.4	49 2.7	49 22.2	49 39.5	49 57.9	50 16.9	50 36.7	50 44.3	50 55.0	....	....
		N.	11	55 8.7	54 48.3	54 28.2	54 5.6	53 47.6	53 26.8	53 5.7	52 46.5	52 38.2	52 28.1	....	....
	W.	N.	13	33 59.6	34 21.0	34 40.3	35 4.4	35 22.5	35 42.9	36 3.0	36 22.8	36 31.1	36 40.2	....	....
		S.	13	40 43.5	40 25.1	40 5.5	39 48.1	39 29.5	39 10.4	32 52.1	38 32.0	38 23.0	38 13.9	....	....
15	E.	N.	12	....	....	5 11.3	5 28.9	5 45.8	6 2.7	6 20.5	....	6 45.3	6 54.9	7 4.9	7 13.8
		S.	12	....	....	10 19.7	10 1.7	9 43.0	9 24.4	9 5.8	....	8 37.9	8 30.8	8 20.0	8 10.5
	W.	S.	13	....	....	58 5.5	58 23.3	58 40.7	58 59.6	59 17.0	....	59 45.8	59 55.7	0 4.2	0 14.0
		N.	14	....	....	3 13.0	2 56.6	2 40.6	2 21.5	2 3.2	....	1 38.0	1 29.4	1 21.5	1 11.7
15	E.	S.	12	....	....	22 46.4	23 3.1	23 16.7	23 33.1	....	24 4.9	24 12.2	24 18.5	24 26.5	....
		N.	12	....	....	27 13.0	26 54.9	26 40.4	26 22.8	....	25 52.2	25 44.7	25 34.9	25 27.5	....
	W.	N.	14	....	....	31 52.8	32 8.6	32 23.1	32 38.7	....	33 12.6	33 19.5	33 26.6	33 35.3	....
		S.	14	....	....	36 14.3	35 58.9	35 44.2	35 28.8	....	34 59.6	34 51.7	34 43.2	34 34.8	....
15	E.	N.	14	....	....	....	....	....	....	5 47.8	6 32.9	6 56.7	7 17.3	7 52.8	8 17.1
		S.	14	....	....	....	....	....	....	14 58.9	13 46.1	13 8.9	12 35.9	11 48.9	11 22.5
	W.	S.	14	....	....	....	....	....	....	39 32.6	40 51.9	41 24.4	41 56.5	42 40.2	43 6.9
		N.	14	....	....	....	....	....	....	48 47.6	47 57.9	47 34.3	47 16.7	46 39.5	46 18.1
15	E.	S.	17	58 40.2	59 10.3	59 41.9	0 14.4	0 41.1	....	....	....	....	....	....	....
		N.	18	11 17.1	10 31.5	9 45.0	8 59.7	8 21.2	....	....	....	....	....	....	....
	W.	N.	18	54 25.8	55 15.7	56 3.3	56 45.9	57 26.2	....	....	....	....	....	....	....
		S.	19	7 5.9	6 37.4	6 4.3	5 32 1	5 4.8	....	....	....	....	....	....	....
18	E.	S.	5	15 22.9	15 46.5	16 11.8	16 36.4	16 58.8	17 24.0	17 49.5	18 15.0	....	18 39.9	....	....
		N.	5	24 30.6	24 0.6	23 35.0	23 0.4	22 33.7	22 3.3	21 36.6	21 9.4	....	20 42.9	....	....
	W.	N.	6	32 27.1	32 56.1	33 29.3	33 57.7	34 23.8	34 53.5	35 21.6	35 49.6	....	36 15.5	....	....
		S.	6	41 37.8	41 12.3	40 48.0	40 22.4	40 0.5	39 34.4	39 9.5	38 43.6	....	38 19.3	....	....
18	E.	N.	6	....	6 26.3	6 52.3	7 18.5	7 46.5	8 12.0	8 40.8	....	9 21.8	9 34.5	9 49.5	10 5.4
		S.	6	....	16 2.1	15 27.4	14 53.4	14 22.2	13 50.6	13 18.3	....	12 28.5	12 14.3	11 59.5	11 44.0
	W.	S.	7	....	14 18.4	14 53.1	15 26.6	15 58.3	16 31.2	17 3.5	....	17 51.4	18 6.4	18 21.0	18 37.3
		N.	7	....	23 53.8	23 29.0	23 1.4	22 35.3	22 8.4	21 40.7	....	20 59.3	20 44.7	20 28.6	20 13.8
20	E.	N.	4 15 58.0	16 19.5	16 41.4	17 1.1	17 23.0	17 41.5	18 4.8	18 26.6	....	18 59.0	....	....	....
		S.	4 24 44.3	24 18.0	23 52.1	23 29.3	23 4.6	22 40.8	22 18.6	21 54.5	....	21 19.4	....	....	....
	W.	S.	5 46 0.9	46 29.3	46 52.7	47 17.2	47 42.4	48 5.5	48 29.5	48 52.1	....	49 27.7	....	....	....
		N.	5 54 46.2	54 25.9	54 3.6	53 42.5	53 22.1	53 1.0	52 40.6	52 19.2	....	51 46.8	....	....	....
20	E.	S.	5 14 57.4	15 19.3	15 44.3	16 9.9	16 34.4	16 57.8	17 22.6	17 46.9	18 12.5	....	18 36.8	....	....
		N.	5 25 3.3	24 31.9	24 2.3	23 31.9	23 1.9	22 34.5	22 5.8	21 37.8	21 10.6	....	20 43.2	....	....
	W.	N.	6 31 54.1	32 26.5	32 55.3	33 26.1	33 56.0	34 22.3	34 51.3	35 20.5	35 46.4	....	36 13.9	....	....
		S.	6 42 0.6	41 35.3	41 12.1	40 46.7	40 22.0	40 0.3	39 32.3	39 8.7	38 43.5	....	38 18.2	....	....
20	E.	N.	6	....	6 27.0	6 52.6	7 20.3	7 46.4	8 12.8	8 41.0	....	9 24.3	9 37.1	9 52.5	10 7.7
		S.	6	....	15 59.6	15 26.1	14 53.0	14 19.7	13 47.2	13 16.6	....	12 30.0	12 14.0	11 58.0	11 43.5
	W.	S.	7	....	14 19.7	14 54.6	15 27.0	15 58.5	16 34.5	17 4.4	....	17 51.6	18 7.5	18 22.7	18 38.6
		N.	7	....	23 51.8	23 26.7	22 59.4	22 32.2	22 6.1	21 38.0	....	20 55.7	20 42.5	20 27.8	20 12.4
20	E.	N.	11	....	48 41.7	48 59.9	49 18.7	49 35.7	49 53.9	50 11.3	....	50 40.9	50 49.5	51 0.2	....
		S.	11	....	54 48.8	54 29.6	54 7.0	53 48.6	53 30.7	53 10.9	....	52 39.9	52 30.1	52 20.9	....
	W.	S.	13	....	34 15.8	34 35.0	34 57.5	35 16.3	35 35.5	35 56.5	....	36 26.8	36 35.5	36 46.6	....
		N.	13	....	40 25.5	40 8.8	39 48.0	39 31.3	39 13.4	38 54.6	....	38 25.2	38 17.1	38 7.5	....
20	E.	S.	12	....	....	5 14.1	5 32.2	5 47.2	6 5.3	6 23.7	6 41.2	6 49.1	6 58.1	7 5.6	....
		N.	12	....	....	10 15.7	9 55.3	9 38.0	9 19.3	9 1.3	8 42.8	8 34.3	8 25.4	8 14.6	....
	W.	N.	13	....	....	58 6.8	58 25.4	58 42.3	59 2.3	59 20.4	59 38.8	59 45.7	59 56.1	0 6.6	....
		S.	14	....	....	3 9.2	2 52.1	2 35.9	2 17.6	1 59.7	1 42.8	1 33.5	1 25.0	1 15.4	....
21	E.	S.	2	10 23.8	10 45.4	11 8.4	11 30.8	11 51.5	12 14.9	12 37.2	12 59.9	13 11.0	13 22.3	....	....
		N.	2	18 32.2	18 5.7	17 38.9	17 12.9	16 49.7	16 23.8	15 58.4	15 35.2	15 23.0	15 11.4	....	....
	W.	N.	3	36 42.0	37 8.0	37 34.7	38 0.7	38 24.0	38 49.4	39 14.4	39 38.9	39 50.0	40 1.9	....	....
		S.	3	44 52.4	44 30.5	44 7.1	43 45.1	43 24.3	43 1.1	42 38.4	42 15.8	42 4.1	41 53.9	....	....
21	E.	S.	4	16 21.7	16 42.4	17 4.7	17 26.3	17 46.7	18 8.7	18 30.1	18 51.3	....	19 13.7	....	....
		N.	4	24 11.4	23 46.3	23 20.9	22 56.3	22 33.9	22 9.0	21 45.9	21 22.0	....	21 0.4	....	....
	W.	N.	5	46 34.7	46 59.2	47 24.0	47 49.4	48 11.6	48 36.4	49 0.1	49 22.5	....	49 45.2	....	....
		S.	5	54 24.5	54 3.3	53 41.0	53 19.5	52 59.5	52 36.5	52 14.9	51 53.3	....	51 32.0	....	....
21	E.	N.	5	15 15.0	15 38.3	16 1.9	16 25.6	16 50.4	17 14.5	17 39.9	....	18 17.0	....	18 42.0	....
		S.	5	24 34.6	24 5.6	23 36.2	23 8.1	22 38.8	22 11.4	21 43.5	....	21 2.7	....	20 35.2	....
	W.	S.	6	32 22.7	32 52.5	33 22.1	33 49.9	34 18.9	34 46.7	35 14.9	....	35 55.7	....	36 22.3	....
		N.	6	41 42.3	41 18.6	40 54.7	40 30.8	40 6.3	39 43.1	39 18.7	....	38 40.3	....	38 14.8	....
21	E.	S.	6	....	6 29.6	6 57.5	7 24.9	7 49.0	8 17.7	8 46.0	9 14.2	....	9 40.8	....	10 10.5
		N.	6	....	15 52.9	15 16.8	14 42.7	14 11.0	13 36.6	13 5.3	12 33.5	....	12 4.3	....	11 33.9
	W.	N.	7	....	14 25.7	15 1.4	15 36.3	16 8.0	16 40.1	17 13.5	17 45.1	....	18 14.7	....	18 44.3
		S.	7	....	23 51.0	23 23.0	22 55.1	22 29.7	22 1.5	21 33.0	21 4.8	....	20 37.1	....	20 8.7

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	″	° ′ ″	″	° ′ ″		
B. A. C. 4311 .	247.0	221.2	−2.344	−2.252	+38 8 35.42	+38.09	+38 9 13.51	T.	Diffuse; light clouds; moonlight.
	240.7	229.0							
	244.9	233.5	−2.338						Diffuse; haze; moonlight.
	252.8	226.8							
B. A. C. 4407 .	240.8	229.2	−2.463	-2.260	38 2 11.61	+37.54	38 2 49.15	T.	Diffuse; moonlight.
	249.6	221.8							
	252.6	226.8	−2.238						Diffuse.
	242.8	232.8							
17 H. Canum Venaticorum.	249.5	222.4	−2.319	−2.279	37 46 19.99	+36.48	37 46 56.47	T.	Diffuse; moonlight.
	241.5	231.5							
	247.2	233.4	−2.438						Diffuse.
	253.2	228.0							
γ Bootis.......	242.8	232.2	−2.175	−2.255	38 48 41.64	+32.91	38 49 14.55	T.	Very diffuse.
	251.8	227.6							
	252.3	229.2	−2.494						Diffuse.
	249.2	232.4							
α Lyræ........	254.4	229.3	−2.438	−2.238	38 40 29.30	+ 2.40	38 40 31.70	T.	Faint; clouds.
	247.4	233.5							
	245.2	232.0	−2.200						Very faint; clouds.
	247.2	225.2							
40 Aurigæ......	205.6	184.0	−1.700	−1.567	38 29 26.34	+ 3.32	38 29 29.66	B.	Tolerable seeing; light fog.
	197.6	192.0							
	199.2	196.4	−1.475						Tolerable seeing.
	208.4	187.6							
60 Aurigæ......	199.3	193.2	−1.756	−1.622	38 34 46.76	+ 9.94	38 34 56.70	B.	Tolerable seeing.
	208.0	186.0							
	209.5	188.1	−1.531						Tolerable seeing.
	201.3	198.2							
μ Aurigæ......	228.7	217.2	−2.681	−2.531	38 20 43.12	− 4.07	38 20 39.05	B.	Pretty good seeing.
	239.5	208.1							
	241.0	212.0	−2.538						Tolerable seeing.
	232.6	221.0							
40 Aurigæ......	241.7	209.9	-2.794	-2.629	38 29 25.88	+ 3.25	38 29 29.13	B.	Tolerable seeing.
	232.6	219.7							
	234.0	222.0	−2.625						Pretty good seeing.
	243.3	213.3							
60 Aurigæ......	233.7	220.7	-2.825	−2.620	38 34 46.22	+ 9.83	38 34 56.05	B.	Tolerable seeing.
	244.1	211.9							
	244.0	214.8	−2.575						Tolerable seeing.
	236.0	224.0							
B. A. C. 4311 .	233.2	220.8	−2.500	- 2.435	38 8 35.82	+37.75	38 9 13.57	T.	Faint at times.
	242.0	214.4							
	246.8	220.5	−2.544						Fair image.
	241.2	226.8							
B. A. C. 4407 .	241.6	215.0	−2.550	-2.386	38 2 11.87	+37.26	38 2 49.13	T.	Fair seeing.
	236.7	222.5							
	240.8	228.2	2.400						Faint; clouds.
	247.6	221.8							
ρ Persei.......	196.8	190.4	+0.325	+0.443	38 23 28.18	18.93	38 23 9.25	T.	Very faint
	188.0	199.6							
	191.6	207.0	+0.575						Excellent image.
	204.5	198.3							
μ Aurigæ......	206.7	198.8	+0.188	+0.380	38 20 43.14	- 4.09	38 20 39.05	T.	Good image.
	198.3	209.2							
	201.2	214.4	+0.588						Good image.
	210.5	206.7							
40 Aurigæ......	199.5	212.2	+0.306	+0.407	38 29 26.32	+ 3.19	38 29 29.51	T.	Good image.
	210.8	203.0							
	212.4	208.0	+0.525						Woolly.
	204.2	217.0							
60 Aurigæ......	211.4	206.4	+0.413	+0.512	+38 34 47.24	9.74	+38 34 56.98	T.	Fair seeing; woolly.
	203.5	215.1							
	204.7	218.2	+0.631						Woolly.
	214.0	210.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1884 Feb. 26	E.	N.	11 48 0.3	48 18.9	48 37.4	48 54.9	49 13.4	49 31.7	49 49.7	50 8.7	....	50 36.3	50 45.0	....	....
		S.	11 55 27.4	55 6.3	54 45.9	54 26.4	54 6.4	53 45.4	53 26.8	53 6.8	....	52 37.2	52 28.0	....	....
	W.	S.	13 33 34.3	33 56.0	34 17.2	34 36.0	34 55.8	35 16.4	35 35.6	35 55.6	....	36 25.8	36 34.5	....	....
		N.	13 41 0.9	40 42.3	40 23.6	40 6.1	39 47.5	39 29.4	39 11.8	38 52.8	....	38 24.6	38 16.0	....	....
26	E.	S.	12	....	....	5 9.5	5 27.7	5 44.5	6 1.8	6 19.7	6 37.0	6 45.7	6 54.3	7 2.9	....
		N.	12	....	....	10 11.2	9 52.3	9 34.7	9 15.4	8 57.0	8 38.8	8 30.3	8 21.0	8 11.1	....
	W.	N.	13	....	....	58 5.2	58 25.2	58 41.5	59 0.8	59 19.8	59 37.9	59 46.9	59 55.7	0 5.0	....
		S.	14	....	....	3 7.4	2 49.7	2 34.0	2 15.4	1 58.4	1 40.4	1 32.0	1 22.9	1 15.0	....
26	E.	N.	12	....	....	22 39.3	22 53.8	23 9.8	23 24.3	23 39.7	....	24 3.4	....	....	....
		S.	12	....	....	27 10.3	26 54.2	26 38.4	26 22.3	26 6.4	....	25 42.4	....	....	....
	W.	S.	14	....	....	31 46.0	32 1.9	32 18.0	32 32.6	32 49.4	....	33 14.0	....	....	....
		N.	14	....	....	36 15.8	36 0.2	35 45.4	35 30.4	35 14.7	....	34 51.9	....	....	....
26	E.	S.	14	....	....	....	....	....	....	5 49.5	6 39.5	7 1.6	7 24.0	7 51.1	8 18.0
		N.	14	....	....	....	....	....	....	14 31.4	13 17.4	12 42.9	12 9.5	11 35.1	11 7.0
	W.	N.	14	....	....	....	....	....	....	39 49.0	41 10.4	41 39.6	42 14.9	42 45.0	43 19.0
		S.	14	....	....	....	....	....	....	48 37.3	47 48.3	47 26.8	47 1.8	46 34.4	46 6.5
26	E.	N.	17	58 25.8	58 55.6	59 27.0	59 54.9	0 26.6	0 58.0	1 30.1	....	2 20.2	2 36.4	2 54.5	3 11.4
		S.	18	11 17.7	10 30.0	9 46.6	9 2.8	8 20.8	7 40.3	7 1.8	....	6 3.6	5 45.1	5 25.5	5 6.0
	W.	S.	18	54 20.2	55 4.4	55 52.5	56 32.5	57 15.2	57 55.3	58 33.8	....	59 32.5	59 51.5	0 12.8	0 30.3
		N.	19	7 14.3	6 45.5	6 14.9	5 43.2	5 11.2	4 41.2	4 9.2	....	3 19.3	3 4.3	2 46.4	2 28.8
28	E.	N.	4	16 19.1	16 40.1	17 0.4	....	17 43.1	18 3.0	18 25.1	18 48.8	18 58.3	19 9.0	....	....
		S.	4	24 8.0	23 44.7	23 21.1	....	22 32.8	22 10.3	21 47.4	21 22.9	21 11.7	21 1.5	....	....
	W.	S.	5	46 30.3	46 54.3	47 17.7	....	48 6.3	48 29.5	48 52.7	49 17.3	49 27.0	49 37.9	....	....
		N.	5	54 21.9	53 59.7	53 39.6	....	52 57.3	52 36.2	52 14.8	51 52.0	51 42.5	51 31.0	....	....
28	E.	S.	5	....	....	....	16 27.9	16 49.5	17 14.7	17 39.9	18 4.9	18 17.1	....	....	....
		N.	5	....	....	....	23 2.8	22 35.9	22 6.2	21 38.4	21 11.5	20 58.2	....	....	....
	W.	N.	6	....	....	....	33 49.6	34 16.1	34 45.4	35 14.3	35 40.6	35 53.8	....	....	....
		S.	6	....	....	....	40 24.5	40 1.9	39 36.2	39 11.5	38 45.6	38 32.9	....	....	....
28	E.	N.	6	....	....	....	7 19.6	7 46.9	8 13.5	8 40.9	9 10.2	....	9 36.9	....	10 6.9
		S.	6	....	....	....	14 43.0	14 10.7	13 38.4	13 6.7	12 34.0	....	12 4.9	....	11 33.3
	W.	S.	7	....	....	....	15 29.3	16 1.8	16 33.2	17 5.1	17 39.1	....	18 7.9	....	18 40.0
		N.	7	....	....	....	22 54.2	22 27.2	22 0.6	21 32.6	21 3.7	....	20 37.7	....	20 5.8
28	E.	N.	11 48 3.5	48 22.5	48 40.2	48 58.2	49 16.3	49 35.0	....	....	50 31.5	....	50 48.5	....	....
		S.	11 55 24.1	55 3.5	54 42.5	54 23.3	54 3.6	53 43.3	....	....	52 43.0	....	52 25.5	....	....
	W.	S.	13 33 36.0	33 57.7	34 18.1	34 37.6	34 58.2	35 18.6	....	....	36 17.5	....	36 36.5	....	....
		N.	13 40 57.9	40 39.7	40 22.4	40 3.0	39 45.2	39 26.8	....	....	38 30.4	....	38 12.3	....	....
28	E.	S.	14	....	....	....	....	....	....	5 44.2	6 33.0	6 54.5	....	7 48.5	8 13.5
		N.	14	....	....	....	....	....	....	14 43.8	13 26.0	12 50.7	....	11 41.0	11 12.1
	W.	N.	14	....	....	....	....	....	....	39 40.4	40 58.0	41 34.4	....	42 39.5	43 10.7
		S.	14	....	....	....	....	....	....	48 43.0	47 52.2	47 30.6	....	46 40.6	46 13.7
28	E.	S.	18	....	....	....	....	....	1 2.0	1 34.4	2 6.2	2 21.7	2 36.7	2 53.8	3 12.6
		N.	18	....	....	....	....	....	7 37.9	6 56.4	6 18.9	6 0.7	5 42.0	5 23.6	5 4.7
	W.	N.	18	....	....	....	....	....	58 2.2	58 41.4	59 20.6	59 39.6	59 57.6	0 15.6	0 34.4
		S.	19	....	....	....	....	....	4 35.6	4 2.6	3 30.0	3 13.5	2 57.0	2 40.0	2 22.4
Mar. 4	E.	N.	5	15 15.4	15 38.3	16 0.5	16 25.2	16 49.9	17 16.1	17 38.0	18 4.2	....	18 27.1	....	....
		S.	5	24 23.0	23 54.0	23 23.5	22 55.3	22 28.0	22 0.5	21 33.4	21 4.8	....	20 38.7	....	....
	W.	S.	6	32 24.0	32 52.4	33 23.0	33 50.5	34 19.2	34 45.9	35 13.7	35 41.7	....	36 7.7	....	....
		N.	6	41 34.4	41 8.8	40 45.9	40 20.7	39 56.9	39 33.1	39 7.8	38 42.1	....	38 16.9	....	....
4	E.	S.	6	....	6 19.7	6 48.8	7 14.3	7 39.5	8 6.9	8 37.2	9 5.0	....	9 33.8	....	10 3.0
		N.	6	....	15 52.7	15 18.0	14 42.4	14 11.9	13 38.7	13 5.8	12 32.1	....	12 4.6	....	11 33.0
	W.	N.	7	....	14 14.9	14 49.9	15 26.3	15 56.2	16 29.0	17 3.7	17 35.0	....	18 5.8	....	18 34.3
		S.	7	....	23 51.9	23 22.8	22 55.9	22 30.9	22 0.9	21 34.8	21 6.2	....	20 38.9	....	20 8.0
6	E.	S.	5	....	15 33.8	....	16 23.4	....	17 12.3	17 37.5	18 2.3	....	18 26.2	....	....
		N.	5	....	23 57.5	....	22 56.4	....	22 1.6	21 32.9	21 5.5	....	20 39.6	....	....
	W.	N.	6	....	32 47.0	....	33 48.7	....	34 43.9	35 11.7	35 38.5	....	36 5.9	....	....
		S.	6	....	41 11.5	....	40 22.2	....	39 33.3	39 8.7	38 43.6	....	38 19.3	....	....
10	E.	N.	5 46 45.8	47 9.5	47 32.3	47 44.1	47 56.3	48 7.8	48 19.3	48 31.6	48 43.1	48 54.9	49 8.0	....	....
		S.	5 52 59.0	52 33.4	52 8.9	51 56.3	51 44.5	51 32.0	51 19.8	51 7.9	50 56.0	50 43.2	50 31.1	....	....
	W.	S.	8 35 2.9	35 28.3	35 53.5	36 5.5	36 18.0	36 30.1	36 42.3	36 54.4	37 7.1	37 18.8	37 31.7	....	....
		N.	8 41 16.4	40 52.7	40 29.6	40 17.6	40 6.1	39 54.4	39 41.4	39 30.5	39 18.7	39 6.8	38 54.7	....	....
15	E.	N.	5	15 4.7	15 31.0	....	16 18.2	16 41.4	17 5.2	17 29.7	17 56.2	18 7.9	18 20.2	18 33.0	....
		S.	5	24 18.2	23 48.1	....	22 50.9	22 22.4	21 55.9	21 26.8	20 58.8	20 46.6	20 33.4	20 18.6	....
	W.	S.	6	32 11.8	32 41.6	....	33 39.9	34 9.0	34 35.7	35 4.1	35 32.1	35 44.7	35 57.3	36 11.9	....
		N.	6	41 24.3	41 0.4	....	40 12.7	39 47.7	39 24.2	38 58.6	38 32.7	38 21.4	38 9.4	37 55.9	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ′ "	"	° ′ "		
B. A. C. 4311 .	194.2	204.2	−0.050	−0.037	+38 8 35.92	+37.25	+38 9 13.17	B.	Tolerably good seeing; wind; thin clouds.
	209.0	198.2							
	220.7	214.1	−0.025						Fair seeing; wind down.
	215.1	221.3							
B. A. C. 4407 .	210.7	199.6	0.138	−0.083	38 2 11.85	+36.84	38 2 48.69	B.	Tolerable seeing; wind.
	203.1	212.0							
	215.8	221.6	−0.031						Tolerable seeing.
	222.4	216.1							
17 H. Canum Venaticorum.	204.7	212.9	−0.088	-0.052	37 46 19.64	+35.97	37 46 55.61	B.	Fair seeing.
	216.0	206.4							
	223.6	216.4	−0.019						Tolerable seeing.
	217.0	223.9							
γ Bootis	222.2	216.6	−0.144	−0.134	38 48 41.61	+32.83	38 49 14.44	B.	Tolerable seeing; diffuse image.
	217.9	221.2							
	218.7	222.2	−0.131						Tolerable seeing; diffuse image.
	223.3	217.7							
α Lyræ	221.1	224.3	−0.075	−0.021	38 40 27.19	+ 4.39	38 40 31.58	B.	Fair image; thin clouds.
	224.8	220.4							
	221.6	217.8	+0.031						Image rather unsteady; clouds.
	216.2	220.5							
μ Aurigæ	243.4	259.6	+0.069	−0.017	38 20 43.92	− 4.28	38 20 39.64	T.	Chronograph working badly.
	261.9	246.8							
	268.8	255.7	−0.106						Unsteady; woolly.
	257.4	268.8							
40 Aurigæ	269.2	252.7	−0.481	−0.336	38 29 26.95	+ 2.70	38 29 29.65	T.	Unsteady; woolly; gale.
	257.2	266.0							
	260.4	270.0	−0.225						Woolly; unsteady; gale.
	273.4	260.2							
60 Aurigæ	258.6	268.0	−0.313	−0.276	38 34 47.40	+ 9.01	38 34 56.41	T.	Woolly; unsteady; gale.
	271.8	257.4							
	274.8	262.1	−0.269						Woolly; unsteady; gale.
	265.2	273.6							
B. A. C. 4311 .	280.8	284.8	−0.738	−0.512	38 8 36.23	+36.96	38 9 13.19	B.	Tolerable image; fresh wind; light clouds.
	290.8	275.0							
	293.6	279.7	−0.356						Tolerable seeing.
	283.4	291.6							
γ Bootis	295.8	279.4	−0.838	−0.743	38 48 41.26	+32.68	38 49 13.94	B.	Tolerable seeing; diffuse image.
	286.3	289.3							
	286.4	289.9	−0.744						Diffuse image.
	296.2	280.8							
α Lyræ	304.0	290.0	−0.544	−0.382	38 40 27.12	+ 4.67	38 40 31.79	B.	Poor seeing; image unsteady; strong wind.
	295.1	300.4							
	293.4	299.8	−0.275						Poor seeing.
	301.2	290.4							
40 Aurigæ	190.8	201.2	+1.550	+1.379	38 29 27.16	+ 2.69	38 29 29.85	T.	Faint; diffuse; unsteady; light clouds; moonlight.
	190.8	205.2							
	197.0	211.0	+1.250						Diffuse and unsteady; moonlight.
	201.9	207.9							
60 Aurigæ	195.1	208.9	+1.313	+1.226	38 34 47.73	+ 8.83	38 34 56.56	T.	Faint; diffuse; moonlight.
	199.6	206.8							
	203.2	209.0	+1.181						Poor seeing; faint; diffuse; unsteady.
	200.6	213.7							
40 Aurigæ	166.2	186.4	+1.038	+0.981	38 29 26.90	+ 2.63	38 29 29.53	T.	Diffuse; moonlight; chronograph pen working badly.
	179.6	176.0							
	185.2	178.8	+0.931						Faint and diffuse; clouds.
	171.6	192.9							
65 Aurigæ	174.3	165.2	−0.063	−0.016	36 58 32.30	+12.56	36 58 44.86	B.	Fair image; light clouds; transits over threads A to IX.
	166.6	174.7							
	178.4	186.9	+0.031						Fair seeing.
	187.2	179.2							
40 Aurigæ	144.5	155.2	+0.644	+0.269	+38 29 27.68	+ 2.41	+38 29 30.09	T.	Very faint.
	147.6	147.2							
	156.8	160.8	-0.113						Slightly diffuse.
	163.3	157.5							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1884			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Mar. 15	E.	N.	6	....	6 16.4	6 41.7	7 8.9	7 36.0	8 2.5	8 31.0	8 59.9	....	9 26.4	....	9 57.2
		S.	6	....	15 42.9	15 9.3	14 35.5	14 2.1	13 31.0	12 58.9	12 26.0	....	11 56.9	....	11 24.8
	W.	S.	7	....	14 9.5	14 43.1	15 17.2	15 50.3	16 21.6	16 53.8	17 27.9	....	17 55.4	....	18 28.2
		N.	7	....	23 35.6	23 10.0	22 42.7	22 15.6	21 48.8	21 20.5	20 52.3	....	20 25.6	....	19 54.1
15	E.	S.	5	47 40.1	47 51.7	48 4.2	48 16.1	48 27.3	48 39.9	48 51.6	49 3.5	49 8.8	....	....	....
		N.	5	51 54.6	51 42.7	51 29.9	51 17.0	51 5.7	50 53.1	50 41.0	50 28.7	50 23.1	....	....	....
	W.	N.	8	36 1.1	36 13.0	36 25.7	36 38.3	36 48.8	37 2.0	37 14.7	37 27.3	37 32.4	....	....	....
		S.	8	40 15.7	40 3.7	39 51.4	39 38.8	39 27.9	39 16.0	39 3.6	38 52.0	38 46.3	....	....	....
21	E.	S.	14	....	....	....	....	....	4 49.2	5 35.9	6 23.9	6 46.7	7 10.4	7 38.0	8 2.6
		N.	14	....	....	....	....	....	16 5.1	14 41.6	13 21.1	12 46.8	12 11.0	11 37.0	11 6.0
	W.	N.	14	....	....	....	....	....	37 53.3	39 17.7	40 40.5	41 13.6	41 46.8	42 21.9	42 51.7
		S.	14	....	....	....	....	....	49 11.6	48 25.3	47 35.9	47 13.5	46 47.5	46 19.9	45 54.7
22	E.	N.	6	....	6 9.1	6 35.7	7 3.1	7 29.8	7 56.0	8 24.1	8 53.2	9 6.0	9 19.2	....	....
		S.	6	....	15 39.8	15 7.2	14 32.0	13 59.2	13 27.7	12 55.3	12 23.2	12 8.4	11 54.0	....	....
	W.	S.	7	....	14 4.0	14 37.2	15 11.1	15 43.8	16 15.8	16 47.9	17 20.7	17 35.5	17 49.2	....	....
		N.	7	....	23 32.9	23 7.1	22 38.8	22 12.5	21 45.8	21 17.0	20 49.2	20 36.0	20 22.8	....	....
24	E.	N.	7 38 5.7	38 27.6	38 49.6	39 11.1	39 33.7	39 57.4	40 18.4	40 41.8	41 6.0	....	41 27.4	....	....
		S.	7 47 20.0	46 53.4	46 25.8	46 0.7	45 35.0	45 10.6	44 44.0	44 18.7	43 54.1	....	43 31.1	....	....
	W.	S.	9 2 33.2	3 0.5	3 27.6	3 52.7	4 17.7	4 44.1	5 8.8	5 34.8	6 0.6	....	6 23.4	....	....
		N.	9 11 48.0	11 25.4	11 3.0	10 41.5	10 19.9	9 57.4	9 35.3	9 12.0	8 48.0	....	8 26.1	....	....
24	E.	N.	14	....	....	....	....	4 1.8	4 47.0	5 32.0	6 23.1	6 45.1	7 10.0	7 37.1	8 6.1
		S.	14	....	....	....	....	17 40.9	16 2.4	14 33.9	13 13.6	12 40.5	12 6.3	11 33.3	10 58.0
	W.	S.	14	....	....	....	....	36 5.9	37 47.6	39 16.9	40 39.1	41 13.1	41 45.7	42 21.0	42 55.6
		N.	14	....	....	....	....	49 52.2	49 9.0	48 21.9	47 30.6	47 9.1	46 44.1	46 16.9	45 48.5
24	E.	N.	15	56 44.0	56 56.4	57 9.7	57 23.7	57 36.4	57 49.7	58 3.5	58 17.4	....	....	....	....
		S.	16	1 29.6	1 15.3	1 1.4	0 47.6	0 33.6	0 20.4	0 5.8	59 51.8	....	....	....	....
	W.	S.	18	24 58.8	25 12.9	25 27.0	25 39.1	25 53.6	26 8.3	26 21.8	26 37.2	....	....	....	....
		N.	18	29 44.6	29 31.5	29 18.6	29 4.4	28 51.0	28 38.6	28 24.4	28 10.8	....	....	....	....
24	E.	N.	17 55 50.1	....	....	....	59 44.9	0 15.1	0 46.6	....	1 52.9	2 6.1	2 24.6	2 40.9	....
		S.	18 15 18.9	....	....	....	8 42.8	7 58.9	7 17.7	....	6 0.0	5 40.7	5 24.0	5 4.0	....
	W.	S.	18 49 48.5	....	....	....	56 25.2	57 8.9	57 46.9	....	59 7.5	59 24.0	59 42.4	0 1.7	....
		N.	19 9 17.0	....	....	....	5 23.5	4 53.6	4 22.8	....	3 14.3	2 59.1	2 43.3	2 25.6	....
27	E.	N.	15	10 26.4	10 40.9	10 55.4	11 10.3	11 23.8	11 38.5	11 53.4	12 8.7	....	....	....	....
		S.	15	15 39.7	15 23.7	15 8.3	14 52.4	14 37.4	14 22.4	14 6.5	13 50.3	....	....	....	....
	W.	S.	17	25 59.6	26 13.9	26 29.2	26 44.4	26 58.4	27 15.6	27 29.6	27 45.4	....	....	....	....
		N.	17	31 10.4	30 56.2	30 42.5	30 27.9	30 13.7	29 59.7	29 44.5	29 28.8	....	....	....	....
27	E.	S.	16 31 37.2	31 50.3	32 3.6	32 16.0	32 29.2	32 41.5	....	....	....	....	....	....	....
		N.	16 36 41.2	36 26.5	36 12.9	35 59.4	35 45.9	35 33.4	....	....	....	....	....	....	....
	W.	N.	19 6 56.5	7 11.0	7 24.4	7 37.7	7 52.4	8 4.4	....	....	....	....	....	....	....
		S.	19 11 59.7	11 46.7	11 34.3	11 20.9	11 7.6	10 55.5	....	....	....	....	....	....	....
27	E.	N.	17	....	....	....	59 43.8	0 14.5	0 45.9	1 17.9	....	2 7.0	2 23.0	2 41.4	3 0.3
		S.	18	....	....	....	8 41.0	8 0.6	7 17.5	6 40.1	....	5 42.2	5 22.2	5 3.1	4 43.4
	W.	S.	18	....	....	....	56 22.4	57 4.0	57 46.4	58 23.8	....	59 22.7	59 40.7	59 59.4	0 20.7
		N.	19	....	....	....	5 20.5	4 48.5	4 18.2	3 47.8	....	2 58.6	2 41.3	2 24.3	2 5.5
30	E.	S.	14	....	....	....	....	....	4 39.3	....	6 17.3	6 39.8	7 6.6	7 33.7	7 58.3
		N.	14	....	....	....	....	....	16 8.9	....	13 20.8	12 46.0	12 12.0	11 36.4	11 6.7
	W.	N.	14	....	....	....	....	....	37 41.1	....	40 26.1	41 0.0	41 31.0	42 7.4	42 40.0
		S.	14	....	....	....	....	....	49 8.0	....	47 30.4	47 8.0	46 43.6	46 16.0	45 53.8
30	E.	S.	15	10 21.8	10 36.4	10 51.4	11 6.4	11 20.2	11 35.0	11 49.6	12 4.1	....	....	....	....
		N.	15	15 40.4	15 25.0	15 9.0	14 52.3	14 38.4	14 21.9	14 6.8	13 51.4	....	....	....	....
	W.	N.	17	25 54.8	26 9.5	26 26.3	26 42.0	26 56.7	27 11.9	27 27.5	27 43.2	....	....	....	....
		S.	17	31 13.2	30 58.4	30 43.6	30 28.3	30 14.5	29 59.1	29 43.9	29 29.8	....	....	....	....
30	E.	N.	15 42 29.3	42 52.7	43 15.6	43 28.0	43 39.7	43 51.3	44 3.2	44 15.0	44 27.0	44 37.3	44 49.6	....	....
		S.	15 48 38.0	48 13.0	47 48.3	47 35.6	47 23.2	47 11.9	46 59.5	46 47.0	46 35.4	46 22.7	46 10.6	....	....
	W.	S.	18 32 24.4	32 49.7	33 13.9	33 26.5	33 39.3	33 50.8	34 3.0	34 14.1	34 26.7	34 39.5	34 51.3	....	....
		N.	18 38 33.8	38 10.6	37 47.4	37 35.0	37 23.5	37 12.0	37 0.4	36 48.0	36 36.7	36 24.7	36 11.9	....	....
30	E.	S.	15	56 38.4	56 51.6	57 5.9	57 19.1	57 31.9	57 46.1	58 0.1	58 12.7	....	58 26.2	....	....
		N.	16	1 29.3	1 15.5	1 1.0	0 45.7	0 33.0	0 18.6	0 4.3	59 50.4	....	59 37.5	....	....
	W.	N.	18	24 53.0	25 7.0	25 21.8	25 35.8	25 49.4	26 4.2	26 18.0	26 31.8	....	26 45.5	....	....
		S.	18	29 43.9	29 30.1	29 17.1	29 2.7	28 50.5	28 36.3	28 22.5	28 9.7	....	27 55.0	....	....
30	E.	S.	16	31 48.8	32 1.4	32 14.0	32 27.3	32 39.5	32 52.9	33 5.5	33 18.5	33 24.4	33 31.5	....	....
		N.	16	36 25.5	36 12.5	35 58.7	35 44.7	35 32.1	35 17.8	35 5.2	34 52.0	34 45.5	34 38.8	....	....
	W.	N.	19	7 8.3	7 22.6	7 35.7	7 50.3	8 2.4	8 16.5	8 29.4	8 42.5	8 48.8	8 56.3	....	....
		S.	19	11 46.4	11 33.6	11 20.3	11 6.5	10 53.9	10 41.4	10 28.8	10 16.2	10 10.0	10 3.8	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
60 Aurigæ......	159.2	152.0	-0.306	-0.371	+38 34 48.59	+ 8.14	+38 34 56.73	T.	Fair image.
	156.8	159.1							
	161.2	164.4	—0.431						Fair image.
	169.0	158.9							
65 Aurigæ......	151.1	152.2	—0.344	—0.369	36 58 32.75	+12.22	36 58 44.97	T.	Woolly.
	157.4	150.8							
	172.6	162.2	—0.400						Fair image.
	166.0	170.0							
γ Bootis.......	148.0	154.8	—0.775	—0.671	38 48 44.40	+30.24	38 49 14.64	T.	Generally good image; blazing at times.
	163.2	144.0							
	164.0	145.2	—0.550						Not quite steady.
	152.4	162.4							
60 Aurigæ......	128.4	118.8	+0.019	+0.035	38 34 48.67	+ 8.17	38 34 56.84	T.	Very faint; clouds.
	121.1	131.0							
	123.0	136.0	+0.050						Good image.
	138.6	126.4							
Groomb. 1450	127.3	111.5	—0.494	—0.446	38 24 39.79	+19.01	38 24 58.80	B.	Fair seeing.
	116.5	124.4							
	125.4	134.0	—0.375						Good seeing.
	138.6	124.0							
γ Bootis.......	156.1	138.1	—0.875	—0.870	38 48 44.17	+29.77	38 49 13.94	T.	Good image.
	146.2	150.2							
	146.0	150.4	—0.838						Good image.
	157.4	139.6							
e Herculis.....	159.4	143.6	0.975	—0.950	37 24 37.65	+15.17	37 24 52.82	T.	Good image.
	152.0	152.2							
	158.8	162.8	—0.925						Very faint indeed; fog.
	169.2	150.4							
α Lyræ........	168.3	148.3	—1.119	—1.144	38 40 25.49	+ 6.33	38 40 31.82	T.	1¼ inch aperture; unsteady; first thread is A.
	159.2	161.3							
	159.4	161.6	—1.150						Fair image.
	171.4	150.8							
25 Herculis.....	192.8	157.2	—2.375	—2.142	37 39 19.28	+20.28	37 39 39.56	B.	Fair seeing.
	177.1	174.7							
	179.4	180.4	—1.950						Good seeing.
	196.0	163.8							
θ Herculis.....	178.4	178.4	—2.081	—1.808	37 15 48.43	+10.62	37 15 59.05	B.	Fair seeing.
	195.6	162.3							
	195.0	164.8	—1.588						Very faint; light clouds.
	177.4	182.2							
α Lyræ........	196.5	164.0	—1.844	-1.718	38 40 25.69	+ 6.26	38 40 31.95	B.	1¼-inch aperture; image rather unsteady; light clouds.
	179.2	182.2							
	178.0	182.8	—1.600						Full aperture; faint at times; pretty steady; clouds.
	195.2	164.8							
γ Bootis.......	188.2	191.8	—1.063	—1.093	38 48 45.16	+28.51	38 49 13.67	B.	Fair seeing; rather unsteady.
	202.6	182.0							
	208.4	184.9	—1.144						Fair seeing; fresh winds.
	195.7	200.9							
25 Herculis.....	200.0	202.8	—1.263	—1.190	37 39 19.66	+19.80	37 39 39.46	B.	Fair seeing.
	214.6	191.6							
	226.5	198.8	—1.181						A little unsteady.
	208.4	217.2							
π Herculis.....	218.4	192.9	—1.244	—1.238	36 56 14.83	+14.71	36 56 29.54	B.	Fair seeing; tolerable image; transits over threads A to IX.
	203.8	209.4							
	210.2	219.4	1.319						Fair image; light clouds.
	229.9	199.6							
e Herculis.....	203.6	209.6	—1.263	—1.246	37 24 37.81	+14.50	37 24 52.31	B.	Good seeing.
	220.4	194.2							
	229.3	199.6	—1.306						Tolerable image; little unsteady; light clouds.
	210.4	219.2							
θ Herculis.....	206.4	211.2	1.525	-1.364	+37 15 48.44	+10.31	+37 15 58.75	B.	Good seeing.
	224.0	194.8							
	230.2	200.8	1.294						Faint; steady; thin clouds.
	211.3	220.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1884 Mar. 30	E.	N.	17	....	....	....	59 44.7	0 14.6	0 45.3	1 17.5	1 50.5	2 7.3	2 23.8	2 41.8	3 0.9
		S.	18	....	....	....	8 38.1	7 56.3	7 16.4	6 34.0	5 56.8	5 38.8	5 20.2	4 59.4	4 41.0
	W.	S.	18	....	....	....	56 24.3	57 6.0	57 45.3	58 25.5	59 6.4	59 23.4	59 40.4	0 1.3	0 20.4
		N.	19	....	....	....	5 17.7	4 46.0	4 15.9	3 41.6	3 10.1	2 53.6	2 37.6	2 18.8	2 3.1
31	E.	S.	7 38 3.0	38 25.1	38 47.0	39 8.8	39 33.3	39 53.8	40 17.4	40 40.2	41 3.3	....	41 25.0	....	....
		N.	7 47 18.1	46 50.8	46 25.8	45 58.5	45 30.2	45 6.3	44 40.3	44 14.7	43 49.5	....	43 26.4	....	....
	W.	N.	9 2 27.6	2 54.4	3 21.4	3 48.4	4 15.6	4 40.0	5 6.3	5 31.4	5 56.5	....	6 20.6	....	....
		S.	9 11 44.7	11 22.6	11 0.0	10 37.4	10 14.7	9 52.7	9 30.1	9 6.6	8 43.2	....	8 21.0	....	....
Apr. 4	E.	S.	15	10 21.3	10 36.0	10 50.3	11 5.6	11 20.0	11 34.5	11 49.7	12 4.4	....	....	....	....
		N.	15	15 38.0	15 21.6	15 7.1	14 50.1	14 35.7	14 19.5	14 4.4	13 48.5	....	....	....	....
	W.	N.	17	25 52.9	26 8.1	26 24.1	26 40.6	26 55.0	27 10.6	27 26.0	27 41.7	....	....	....	....
		S.	17	31 9.1	30 55.0	30 39.6	30 24.6	30 10.8	29 56.4	29 41.0	29 26.2	....	....	....	....
4	E.	N.	15	....	56 52.6	57 5.8	57 19.1	57 32.5	57 45.6	57 58.6	58 12.8	....	....	....	....
		S.	16	....	1 11.0	0 57.6	0 43.0	0 29.4	0 16.3	0 1.7	59 47.8	....	....	....	....
	W.	S.	18	....	25 7.0	25 20.3	25 35.0	25 48.5	26 2.5	26 16.8	26 30.9	....	....	....	....
		N.	18	....	29 25.5	29 13.0	28 59.3	28 46.3	28 32.9	28 19.3	28 4.6	....	....	....	....
5	E.	S.	7	38 21.9	38 42.6	39 6.5	39 30.7	39 51.4	40 15.3	40 37.8	41 0.7	....	41 23.3	....	41 46.2
		N.	7	46 51.6	46 24.9	45 57.9	45 30.6	45 5.5	44 40.2	44 14.4	43 49.4	....	43 25.7	....	43 1.3
	W.	N.	9	2 50.6	3 18.0	3 43.4	4 10.9	4 35.6	5 2.1	5 26.7	5 52.6	....	6 16.1	....	6 39.7
		S.	9	11 20.1	10 59.2	10 35.8	10 13.2	9 50.9	9 27.8	9 4.8	8 41.5	....	8 18.9	....	7 55.3
6	E.	S.	14	....	....	....	....	....	4 44.6	5 31.8	6 22.0	6 45.3	7 8.7	7 37.0	8 3.5
		N.	14	....	....	....	....	....	16 3.4	14 36.6	13 19.0	12 42.4	12 7.4	11 32.6	10 59.3
	W.	N.	14	....	....	....	....	....	37 36.4	39 6.4	40 27.4	41 1.4	41 34.8	42 8.1	42 38.6
		S.	14	....	....	....	....	....	48 58.7	48 11.4	47 22.9	46 57.9	46 34.0	46 9.5	45 42.3
6	E.	S.	15 10 4.8	10 19.5	10 33.6	10 48.5	11 4.4	11 17.8	11 33.0	11 47.7	12 2.8	....	....	....	....
		N.	15 15 53.5	15 37.5	15 21.6	15 5.4	14 49.1	14 35.0	14 18.6	14 3.4	13 49.0	....	....	....	....
	W.	N.	17 25 35.0	25 51.5	26 7.2	26 23.5	26 39.2	26 53.7	27 9.6	27 25.2	27 40.4	....	....	....	....
		S.	17 31 23.2	31 9.1	30 54.8	30 38.9	30 23.5	30 10.6	29 54.8	29 40.4	29 24.7	....	....	....	....
6	E.	N.	15	....	43 36.5	43 48.0	43 58.7	44 11.5	44 22.4	44 34.0	44 47.0	44 52.5	....	....	....
		S.	15	....	47 21.4	47 9.5	46 57.2	46 44.9	46 33.2	46 21.0	46 9.4	46 2.8	....	....	....
	W.	S.	18	....	33 34.7	33 46.5	33 59.0	34 11.4	34 22.4	34 35.0	34 47.2	34 52.4	....	....	....
		N.	18	....	37 20.3	37 9.2	36 57.6	36 46.0	36 34.3	36 22.3	36 10.5	36 5.2	....	....	....
6	E.	S.	15 56 22.2	56 36.0	....	57 2.7	57 16.1	57 30.1	57 43.3	57 57.0	58 10.8	....	....	....	....
		N.	16 1 41.4	1 26.1	....	0 57.3	0 42.8	0 29.4	0 15.4	0 0.4	59 47.5	....	....	....	....
	W.	N.	18 24 36.0	24 50.8	....	25 18.6	25 34.2	25 47.2	26 1.4	26 16.0	26 29.5	....	....	....	....
		S.	18 29 54.8	29 40.0	....	29 13.1	28 57.8	28 45.8	28 31.6	28 18.7	28 6.0	....	....	....	....
6	E.	S.	18	....	....	....	....	0 8.3	0 40.4	1 13.5	1 47.7	2 4.2	2 19.1	2 35.3	2 53.4
		N.	18	....	....	....	....	7 57.7	7 14.9	6 35.5	5 56.6	5 37.2	5 18.1	5 0.2	4 43.3
	W.	N.	18	....	....	....	....	56 58.3	57 41.8	58 21.0	59 0.8	59 18.3	59 37.4	59 55.0	0 14.0
		S.	19	....	....	....	....	4 47.7	4 13.8	3 40.2	3 9.9	2 52.3	2 36.0	2 18.3	2 2.5
7	E.	S.	7 37 58.3	38 22.0	38 43.4	39 6.3	39 30.2	39 51.0	40 14.4	40 37.4	41 0.6	....	41 22.7	....	....
		N.	7 47 16.0	46 48.7	46 22.3	45 55.4	45 27.4	45 4.3	44 37.6	44 12.0	43 47.3	....	43 23.4	....	....
	W.	N.	9 2 25.0	2 49.9	3 16.8	3 44.3	4 10.3	4 35.5	5 1.5	5 27.3	5 52.9	....	6 16.3	....	....
		S.	9 11 41.6	11 18.7	10 56.7	10 34.5	10 10.3	9 49.0	9 25.6	9 2.2	8 40.8	....	8 17.1	....	....
7	E.	S.	8	....	....	....	40 31.3	41 1.1	41 34.1	42 6.0	42 39.6	42 55.4	43 11.3	43 27.5	43 45.0
		N.	8	....	....	....	49 28.8	48 50.9	48 7.3	47 27.5	46 47.8	46 31.0	46 11.3	45 52.3	45 34.0
	W.	N.	9	....	....	....	36 53.0	37 29.5	38 11.0	38 54.0	39 30.4	39 50.8	40 7.6	40 26.3	40 44.9
		S.	9	....	....	....	45 50.4	45 20.6	44 47.5	44 15.7	43 41.5	43 26.9	43 9.4	42 50.3	42 36.0
7	E.	N.	7	58 55.9	59 7.0	59 18.5	59 30.0	59 41.8	59 53.3	0 5.0	0 17.1	....	....	....	....
		S.	8	3 3.6	2 51.5	2 40.4	2 28.2	2 16.0	2 4.4	1 52.4	1 39.8	....	....	....	....
	W.	S.	10	50 5.3	50 17.5	50 29.4	50 42.1	50 54.1	51 5.8	51 18.0	51 30.0	....	....	....	....
		N.	10	54 13.5	54 1.6	53 50.9	53 39.1	53 27.2	53 15.4	53 4.7	52 52.0	....	....	....	....
11	E.	N.	15 10 5.2	10 19.9	10 34.8	10 49.3	11 2.9	11 17.6	11 31.9	11 47.0	12 2.0	....	....	....	....
		S.	15 15 49.1	15 33.5	15 17.6	15 2.9	14 48.2	14 31.4	14 16.5	14 0.6	13 44.8	....	....	....	....
	W.	S.	17 25 34.7	25 51.0	26 7.0	26 21.6	26 37.5	26 52.9	27 7.6	27 22.9	27 38.8	....	....	....	....
		N.	17 31 19.0	31 4.2	30 49.6	30 35.4	30 20.8	30 5.9	29 52.5	29 37.7	29 22.0	....	....	....	....
11	E.	S.	15 43 9.0	43 20.2	43 33.0	43 44.6	43 57.3	44 8.4	44 20.3	44 31.6	44 44.4	....	....	....	....
		N.	15 47 46.0	47 33.0	47 20.6	47 9.0	46 55.8	46 44.0	46 32.3	46 20.0	46 7.9	....	....	....	....
	W.	N.	18 33 5.8	33 18.7	33 30.6	33 43.8	33 55.9	34 7.1	34 19.0	34 31.5	34 43.9	....	....	....	....
		S.	18 37 43.5	37 30.8	37 19.1	37 7.5	36 55.3	36 43.1	36 31.9	36 20.9	36 8.2	....	....	....	....
11	E.	N.	15 56 22.5	56 36.2	56 50.0	57 2.0	57 15.9	57 29.6	57 43.0	57 55.6	58 10.4	....	....	....	....
		S.	16 1 36.4	1 22.7	1 8.0	0 54.0	0 40.8	0 26.5	0 13.8	59 59.2	59 45.2	....	....	....	....
	W.	S.	18 24 35.5	24 49.6	25 3.4	25 17.9	25 31.3	25 45.1	25 58.4	26 12.7	26 26.7	....	....	....	....
		N.	18 29 49.3	29 35.7	29 21.7	29 8.7	28 55.1	28 42.3	28 28.8	28 15.8	28 1.6	....	....	....	....

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	″	° ′ ″	″	° ′ ″		
α Lyræ........	228.2	199.6	−1.275	−1.254	+38 40 26.24	+ 6.04	+38 40 32.28	B.	1¼-inch aperture; unsteady; light clouds.
	210.2	218.4							
	211.2	219.8	−1.288						Full aperture; good image; quite steady; thin clouds.
	230.0	200.8							
Groomb. 1450	164.5	173.8	−0.675	−0.631	38 24 40.65	+18.43	38 24 59.08	B.	Good image; steady; clouds.
	180.1	160.0							
	184.0	164.8	−0.588						Tolerable image; thin clouds.
	170.9	180.7							
25 Herculis.....	168.4	168.4	−1.169	−1.306	37 39 20.83	+19.14	37 39 39.97	T.	Faint; clouds.
	180.8	162.1							
	194.4	171.8	−1.469						Good seeing.
	184.0	183.1							
e Herculis.....	184.8	166.0	−1.238	−1.353	37 24 38.85	+13.99	37 24 52.84	T.	Fair image; woolly.
	176.7	175.7							
	186.2	185.0	−1.506						Very faint; clouds.
	197.3	174.4							
Groomb. 1450	170.4	171.6	−1.231	−1.162	38 24 41.07	+18.03	38 24 59.10	T.	Woolly.
	184.9	164.0							
	192.5	171.5	−1.100						Woolly; moonlight.
	182.6	186.0							
γ Bootis.......	175.4	177.0	−0.825	−0.799	38 48 46.99	+27.24	38 49 14.23	B.	Image much diffuse.
	190.0	168.8							
	198.8	176.9	−0.779						Better seeing; fair image.
	188.6	191.8							
25 Herculis.....	192.8	194.4	−1.375	−1.201	37 39 20.66	+18.87	37 39 39.53	B.	Fair seeing.
	207.6	184.0							
	218.2	195.6	−1.081						Good seeing.
	204.3	209.6							
π Herculis.....	209.6	187.6	−1.144	−1.114	36 56 15.73	+13.99	36 56 29.72	B.	Fair seeing.
	197.2	200.9							
	206.4	212.0	−1.156						Good seeing.
	221.4	197.3							
e Herculis.....	197.8	200.8	−1.313	−1.272	37 24 38.06	+13.79	37 24 51.85	B.	Very fair seeing.
	212.0	188.0							
	221.4	196.0	−1.300						1¼-inch aperture before reversal; fair seeing; very faint.
	206.8	211.4							
α Lyræ........	205.8	209.7	−1.413	−1.249	38 40 26.28	+ 5.70	38 40 31.98	B.	1¼-inch aperture; fair seeing.
	221.5	195.0							
	222.4	197.9	−1.131						Fair seeing; image slightly diffuse.
	208.0	214.4							
Groomb. 1450	168.0	172.6	−1.088	−0.968	38 24 41.12	+17.81	38 24 58.93	B.	Good seeing.
	182.4	160.4							
	186.5	168.2	−0.850						Good seeing.
	176.0	180.7							
Lalande 18362	173.3	177.1	−1.119	−0.965	38 40 35.61	+21.88	38 40 57.49	B.	Very good seeing; plainly resolved.
	187.5	165.8							
	188.4	171.6	−0.813						Fair seeing.
	179.1	182.9							
10 Leonis Min ..	182.2	161.2	−0.963	−0.995	36 54 35.40	+23.46	36 54 58.86	B.	Good seeing; image little diffuse.
	170.0	175.6							
	184.4	188.0	−1.063						Fair seeing.
	196.8	176.2							
25 Herculis.....	211.4	198.8	−0.538	−0.926	37 39 21.92	+17.84	37 39 39.76	T.	Hazy; diffuse; moonlight.
	203.2	207.2							
	208.5	208.4	−1.363						Generally good seeing.
	220.1	198.4							
π Herculis.....	203.4	206.4	−0.988	−1.160	36 56 16.76	+13.13	36 56 29.89	T.	Diffuse; moonlight.
	214.2	195.4							
	223.2	200.2	−1.413						Diffuse.
	212.0	212.4							
e Herculis	213.9	195.7	−0.938	−1.154	+37 24 39.92	+12.94	+37 24 52.86	T.	Fair seeing; diffuse; moonlight.
	203.2	206.4							
	211.2	211.2	−1.438						Slightly diffuse.
	223.2	200.2							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
1884 Apr. 11	E.	N.	17	....	....	....	59 36.9	0 8.6	0 39.4	1 11.5	1 45.7	2 2.2	2 16.5	2 35.0	....
		S.	18	....	....	....	8 32.9	7 50.8	7 12.3	6 33.8	5 51.5	5 34.7	5 16.0	4 56.4	....
	W.	S.	18	....	....	....	56 13.4	56 58.9	57 37.5	58 18.9	58 57.9	59 15.9	59 33.3	59 53.9	....
		N.	19	....	....	....	5 12.3	4 42.5	4 9.7	3 39.0	3 4.7	2 47.0	2 32.7	2 14.3	....
17	E.	S.	9 1 10.5	1 24.1	1 36.7	1 49.9	2 3.4	2 15.8	2 29.1	2 42.0	2 55.3	....	....	....	....
		N.	9 6 16.2	6 2.7	5 48.9	5 34.9	5 20.7	5 8.0	4 54.3	4 40.7	4 27.8	....	....	....	....
	W.	N.	11 34 48.0	35 2.3	35 15.2	35 29.6	35 43.7	35 56.2	36 9.9	36 23.7	36 36.9	....	....	....	....
		S.	11 39 54.9	39 41.5	39 28.7	39 15.6	39 2.0	38 49.9	38 36.2	38 23.2	38 9.9	....	....	....	....
17	E.	N.	9	....	50 4.0	50 28.2	50 52.6	51 18.0	51 42.1	52 8.4	52 35.4	....	52 59.3	....	53 27.1
		S.	9	....	58 36.3	58 7.4	57 36.9	57 7.9	56 39.7	56 10.4	55 41.5	....	55 15.0	....	54 44.9
	W.	S.	11	....	5 5.7	5 36.0	6 4.7	6 35.1	7 3.2	7 31.7	8 1.2	....	8 28.2	....	8 57.3
		N.	11	....	13 37.4	13 15.0	12 49.9	12 24.6	12 0.5	11 35.0	11 8.0	....	10 44.2	....	10 15.5
17	E.	N.	15 43 7.4	43 19.1	43 31.4	43 42.9	43 53.9	44 6.2	44 16.8	....	....	....	....	....	....
		S.	15 47 41.7	47 28.8	47 16.0	47 4.8	46 52.6	46 40.7	46 28.4	....	....	....	....	....	....
	W.	S.	18 33 2.2	33 15.5	33 28.0	33 39.4	33 51.5	34 3.4	34 15.8	....	....	....	....	....	....
		N.	18 37 37.1	37 24.5	37 12.7	37 1.7	36 50.0	36 37.6	36 26.6	....	....	....	....	....	....
17	E.	S.	15 56 17.7	56 31.9	56 44.7	56 58.2	57 13.0	57 25.4	57 39.5	57 52.5	58 6.3	....	....	....	....
		N.	16 1 35.7	1 19.9	1 6.6	0 52.5	0 37.6	0 24.6	0 10.4	59 56.3	59 42.4	....	....	....	....
	W.	N.	18 24 28.1	24 42.7	24 57.0	25 11.4	25 26.1	25 39.7	25 53.7	26 8.1	26 21.4	....	....	....	....
		S.	18 29 46.1	29 32.4	29 18.4	29 5.2	28 51.3	28 38.6	28 24.1	28 10.4	27 58.0	....	....	....	....
18	E.	S.	8	....	....	....	....	....	41 29.8	42 1.3	42 35.8	42 51.3	43 7.7	43 24.5	43 40.9
		N.	8	....	....	....	....	....	48 4.6	47 23.3	46 42.0	46 24.5	46 6.0	45 48.2	45 30.0
	W.	N.	9	....	....	....	....	....	38 4.5	38 43.8	39 23.2	39 40.4	40 0.4	40 19.1	40 36.5
		S.	9	......	....	....	....	....	44 37.9	44 5.8	43 30.9	43 16.7	43 0.0	42 42.9	42 25.4
18	E.	N.	9 1 10.5	1 23.9	1 36.8	1 49.3	2 2.3	2 15.3	2 28.1	2 41.4	2 54.9	....	....	....	....
		S.	9 6 14.8	6 0.6	5 46.6	5 33.6	5 20.8	5 7.0	4 54.3	4 40.4	4 26.1	....	....	....	....
	W.	S.	11 34 48.7	35 2.5	35 15.7	35 29.8	35 43.3	35 57.0	36 9.9	36 23.2	36 37.3	....	....	....	....
		N.	11 39 52.4	39 39.3	29 26.2	39 14.0	39 1.5	38 48.0	38 35.0	38 22.0	38 8.9	....	....	....	....
18	E.	S.	9	....	....	....	50 52.6	51 16.0	51 42.2	52 7.0	52 34.0	52 45.5	52 58.6	53 12.3	53 24.6
		N.	9	....	....	....	57 36.0	57 6.9	56 37.9	56 8.3	55 40.0	55 26.7	55 13.4	54 59.4	54 47.0
	W.	N.	11	....	....	....	6 5.0	6 31.6	7 1.9	7 31.3	8 0.1	8 12.5	8 26.5	8 39.9	8 52.7
		S.	11	....	....	....	12 49.5	12 24.7	11 59.7	11 33.6	11 8.5	10 55.3	10 42.9	10 29.5	10 18.0
18	E.	N.	15	10 16.0	10 31.3	....	10 59.4	11 13.5	11 28.5	11 42.8	11 58.4	12 4.8	....	....	....
		S.	15	15 29.8	15 14.0	....	14 43.9	14 28.6	14 13.9	13 58.2	13 42.0	13 35.2	....	....	....
	W.	S.	17	25 45.4	26 1.3	....	26 31.9	26 46.6	27 1.8	27 17.2	27 32.0	27 38.9	....	....	....
		N.	17	30 59.3	30 44.0	....	30 14.6	30 0.7	29 46.7	29 31.0	29 16.5	29 9.3	....	....	....
18	E.	S.	15 43 4.9	43 17.3	43 29.7	43 41.0	43 52.9	....	44 17.0	44 27.5	44 40.6	....	....	....	....
		N.	15 47 42.2	47 29.4	47 17.9	47 4.8	46 51.9	....	46 27.9	46 16.0	46 3.5	....	....	....	....
	W.	N.	18 33 0.2	33 13.2	33 25.9	33 38.5	33 50.9	....	34 14.4	34 26.7	34 39.0	....	....	....	....
		S.	18 37 37.3	37 25.8	37 14.7	37 1.3	36 49.0	....	36 26.6	36 13.6	36 2.6	....	....	....	....
18	E.	N.	15	56 32.4	56 45.9	56 59.4	57 12.1	57 26.1	57 39.0	57 51.7	58 6.5	....	....	....	....
		S.	16	1 18.9	1 4.7	0 50.9	0 37.4	0 22.6	0 9.6	59 55.7	59 41.5	....	....	....	....
	W.	S.	18	24 43.9	24 58.3	25 12.0	25 25.6	25 39.1	25 52.9	26 6.5	26 21.6	....	....	....	....
		N.	18	29 28.8	29 16.6	29 3.7	28 50.4	28 37.2	28 24.0	28 10.5	27 56.5	....	....	....	....
18	E.	S.	16	....	31 53.9	32 7.3	32 19.7	32 31.8	32 45.7	32 57.7	33 11.0	33 17.3	33 23.7	....	....
		N.	16	....	36 3.6	35 50.2	35 35.4	35 23.6	35 9.7	34 56.1	34 42.9	34 36.7	34 30.8	....	....
	W.	N.	19	....	7 11.7	7 25.2	7 38.7	7 51.5	8 5.8	8 18.9	8 31.0	8 37.3	8 45.2	....	....
		S.	19	....	11 21.5	11 8.2	10 54.3	10 42.7	10 29.3	10 15.7	10 3.1	9 56.8	9 51.0	....	....
18	E.	N.	17	....	....	....	59 32.8	0 4.9	0 36.1	1 9.9	1 41.9	1 59.5	2 14.2	2 34.2	....
		S.	18	....	....	....	8 30.9	7 52.2	7 9.6	6 30.2	5 48.0	5 31.9	5 13.7	4 53.8	....
	W.	S.	18	....	....	....	56 7.9	56 51.0	57 31.3	58 10.5	58 50.8	59 9.0	59 25.8	59 46.8	....
		N.	19	....	....	....	5 5.9	4 37.4	4 4.7	3 30.6	2 58.1	2 45.0	2 26.4	2 12.2	....
20	E.	N.	18	....	....	....	....	....	0 35.1	1 7.0	1 41.0	1 56.7	2 13.4	2 32.4	2 49.6
		S.	18	....	....	....	....	....	7 9.7	6 25.2	5 46.4	5 29.4	5 11.3	4 51.7	4 34.0
	W.	S.	18	....	....	....	....	....	57 31.7	58 11.4	58 51.3	59 8.7	59 25.6	59 47.2	0 4.4
		N.	19	....	....	....	....	....	4 4.0	3 31.8	2 56.7	2 40.9	2 24.4	2 7.0	1 50.3
27	E.	S.	17 25 0.4	25 14.4	25 27.6	25 42.5	25 56.4	26 9.0	26 23.7	26 37.3	26 51.7	....	....	....	....
		N.	17 30 26.6	30 12.1	29 57.0	29 42.0	29 27.4	29 14.1	28 59.6	28 45.3	28 31.0	....	....	....	....
	W.	N.	19 49 34.4	49 51.0	50 4.6	50 19.4	50 35.3	50 48.4	51 2.9	51 17.4	51 31.4	....	....	....	....
		S.	19 55 2.4	54 48.4	54 35.0	54 20.2	54 6.0	53 53.1	53 38.5	53 24.9	53 11.3	....	....	....	....
28	E.	N.	9	....	....	....	50 45 5	51 9.0	51 33.3	51 59.8	52 25.6	52 37.2	52 50.1	53 4.4	53 18.4
		S.	9	....	....	....	57 33.4	57 2.8	56 34.3	56 5.6	55 36.0	55 22.9	55 10.0	54 55.8	54 41.4
	W.	S.	11	....	....	....	5 53.7	6 24.2	6 52.3	7 21.0	7 51.0	8 4.4	8 16.7	8 31.5	8 46.4
		N.	11	....	....	....	12 42.0	12 17.4	11 53.1	11 27.6	10 59.8	10 48.3	10 35.7	10 21.3	10 8.1

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
α Lyræ........	222.2	198.8	−1.488	−1.434	+38 40 26.57	+ 5.17	+38 40 31.74	T.	Blazing.
	211.1	210.7							
	213.0	212.8	−1.438						Diffuse.
	224.8	202.0							
31 Leonis Min..	169.1	162.0	−1.963	−2.123	37 17 56.69	+25.42	37 18 22.11	T.	Fair image.
	178.8	154.5							
	191.0	160.4	-2.325						Good seeing.
	179.6	173.0							
38 Leonis Min..	182.8	156.4	-2.194	−2.211	38 30 44.11	+25.59	38 31 9.70	T.	Fair image.
	175.2	166.5							
	177.0	169.8	-2.225						Good image; not quite steady.
	188.8	160.4							
π Herculis.....	201.2	169.0	−2.113	−2.112	36 56 18.21	+12.04	36 56 30.25	B.	Blazing.
	186.4	184.8							
	186.0	183.2	−2.200						Fair image; steady; thin clouds.
	200.8	168.4							
ε Herculis.....	187.1	184.4	−2.244	−2.180	37 24 40.88	+11.84	37 24 52.72	B.	Good seeing.
	202.4	169.2							
	200.9	167.9	−2.188						Faint; steady; clouds.
	185.6	183.6							
Lalande 18362	156.4	152.1	−1.664	−1.750	38 40 37.01	+20.84	38 40 57.85	B.	Fair seeing; resolved.
	167.2	144.4							
	170.4	146.0	−1.800						
	161.2	156.8							
31 Leonis Min..	167.8	144.8	−1.638	−1.824	37 17 56.93	+25.28	37 18 22.21	B.	Fair image.
	158.6	155.4							
	171.6	165.6	−2.031						Tolerable seeing.
	182.9	156.4							
38 Leonis Min..	161.8	156.4	−1.888	−2.005	38 30 44.30	+25.44	38 31 9.74	B.	Fair seeing.
	172.6	147.8							
	180.0	152.0	−2.100						Tolerable seeing; rather unsteady.
	169.8	164.2							
25 Herculis.....	198.3	174.1	−1.900	−2.099	37 39 23.19	+16.44	37 39 39.63	T.	Somewhat diffuse; not quite steady.
	189.8	183.6							
	196.8	187.5	−2.369						Very faint; diffuse.
	207.6	179.0							
π Herculis.....	190.5	183.6	−2.156	−2.165	36 56 17.96	+11.88	36 56 29.84	T.	Not well defined; woolly; diffuse.
	201.4	173.8							
	210.0	180.4	2.281						Fair image.
	198.7	191.8							
ε Herculis.....	201.5	174.4	−2.181	−2.197	37 24 41.22	+11.69	37 24 52.91	T.	Fairly well defined.
	192.2	184.4							
	198.5	191.5	−2.300						Tolerable seeing.
	210.0	180.2							
θ Herculis.....	193.2	185.2	−2.300	−2.189	37 15 52.24	+ 7.97	37 16 0.21	T.	Diffuse; not steady.
	204.4	175.6							
	210.8	181.6	−2.175						Faint; diffuse.
	199.4	193.8							
α Lyræ	209.8	178.6	−2.525	−2.331	38 40 27.26	+ 4.23	38 40 31.49	T.	Full aperture; very diffuse.
	199.2	190.0							
	198.8	192.2	−2.188						Diffuse.
	210.4	182.0							
α Lyræ	183.6	152.0	−2.188	−2.067	38 40 27.12	+ 3.99	38 40 31.11	B.	Alternately faint and blazing; clouds.
	171.2	167.8							
	176.0	173.6	−1.938						Bad image; much diffuse; thin clouds.
	190.0	161.4							
ζ′ Lyræ	174.2	165.6	−2.481	−2.498	37 28 57.93	+ 1.74	37 28 59.67	B.	Good seeing.
	185.2	154.1							
	190.5	157.2	−2.556						Very faint; thin clouds.
	178.2	170.6							
38 Leonis Min..	132.0	104.0	−2.125	−2.259	+38 30 45.51	+24.03	+38 31 9.54	B.	Fair seeing.
	122.6	116.6							
	131.6	124.8	−2.275						Tolerable seeing.
	143.6	114.0							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1884			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
Apr. 29	E.	N.	9 1 3.2	1 16.7	1 29.7	1 42.4	1 55.0	2 8.1	2 20.6	2 33.6	2 47.2	....	....	....	....
		S.	9 6 7.9	5 54.0	5 40.3	5 27.5	5 13.9	5 0.6	4 47.5	4 34.2	4 20.5	....	....	....	....
	W.	S.	11 34 40.7	34 54.2	35 8.0	35 21.7	35 34.3	35 47.9	36 1.0	36 14.7	36 28.5	....	....	....	....
		N.	11 39 44.1	39 30.6	39 17.5	39 5.2	38 52.7	38 38.9	38 26.7	38 13.8	38 0.5	....	....	....	....
29	E.	N.	15 42 37.2	43 0.2	43 12.7	43 24.1	43 36.5	43 47.0	43 58.5	44 9.9	44 22.3	44 33.9	....	....	....
		S.	15 47 58.4	47 34.9	47 21.4	47 8.6	46 57.4	46 45.2	46 33.6	46 21.4	46 8.4	45 57.2	....	....	....
	W.	S.	18 32 30.7	32 54.0	33 7.0	33 19.7	33 30.9	33 42.8	33 54.3	34 5.8	34 18.6	34 30.9	....	....	....
		N.	18 37 50.5	37 27.7	37 15.2	37 4.3	36 53.3	36 41.1	36 29.2	36 18.4	36 5.5	35 53.2	....	....	....
29	E.	S.	15	....	....	56 51.3	57 5.4	57 17.3	57 31.9	57 45.3	57 59.4	....	....	....	....
		N.	16	....	....	0 45.9	0 31.4	0 18.0	0 3.6	59 49.3	59 34.9	....	....	....	....
	W.	N.	18	....	....	25 1.1	25 16.3	25 29.6	25 43.2	25 58.3	26 12.7	....	....	....	....
		S.	18	....	....	28 56.3	28 41.9	28 30.3	28 16.5	28 1.4	27 47.4	....	....	....	....
June 18	E.	N.	17	58 22.7	58 54.4	59 23.5	59 55.4	0 26.1	0 56.2	1 28.5	2 3.9	....	2 35.9	....	....
		S.	18	11 21.3	10 33.7	9 50.5	9 4.8	8 20.0	7 40.4	7 1.4	6 21.6	....	5 45.4	....	....
	W.	S.	18	53 41.6	54 30.5	55 15.3	55 59.2	56 41.0	57 21.5	58 3.9	58 41.6	....	59 18.3	....	....
		N.	19	6 40.8	6 11.1	5 40.8	5 9.3	4 38.1	4 7.3	3 35.3	3 0.9	....	2 27.4	....	....
20	E.	S.	17 57 52.2	58 24.5	58 54.9	59 26.6	....	0 28.3	....	1 34.9	2 6.6	....	2 41.0	....	....
		N.	18 12 4.9	11 14.0	10 28.5	9 40.7	....	8 16.6	....	6 53.2	6 13.6	....	5 35.8	....	....
	W.	N.	18 52 51.6	53 42.5	54 31.9	55 19.4	....	56 45.3	....	58 7.3	58 48.0	....	59 24.4	....	....
		S.	19 7 7.0	6 36.3	6 6.1	5 33.6	....	4 32.4	....	3 26.9	2 54.0	....	2 21.2	....	....
20	E.	S.	19 23 40.6	....	24 16.4	24 34.0	24 52.4	....	25 26.4	25 45.4	26 3.8	....	26 21.1	....	....
		N.	19 30 42.2	....	30 1.7	29 41.8	29 22.8	....	28 44.7	28 27.7	28 7.4	....	27 49.9	....	....
	W.	N.	21 14 51.7	....	15 31.2	15 52.3	16 11.1	....	16 48.5	17 7.6	17 25.7	....	17 44.3	....	....
		S.	21 21 53.4	....	21 17.8	20 58.9	20 42.3	....	20 7.3	19 49.3	19 31.4	....	19 14.1	....	....
July 3	E.	S.	17	58 49.4	59 20.5	59 52.6	0 24.3	0 52.9	1 26.5	1 59.8	2 33.5	....	....	....	....
		N.	18	11 42.0	10 54.0	10 7.5	9 22.7	8 39.5	7 57.0	7 18.0	6 39.4	....	....	....	....
	W.	N.	18	54 0.2	54 51.0	55 39.8	56 23.6	57 2.0	57 47.0	58 25.9	59 6.0	....	....	....	....
		S.	19	6 57.5	6 27.3	5 53.9	5 22.0	4 51.3	4 20.0	3 44.3	3 12.7	....	....	....	....
7	E.	S.	17 58 16.2	58 47.2	59 19.1	59 50.4	0 22.4	0 53.3	....	....	2 32.2	....	....	....	....
		N.	18 12 30.7	11 42.2	10 56.9	10 8.4	9 19.5	8 40.2	....	....	6 38.4	....	....	....	....
	W.	N.	18 53 3.4	53 55.4	54 44.3	55 30.6	56 17.1	56 58.0	....	....	58 59.4	....	....	....	....
		S.	19 7 22.4	6 52.6	6 22.3	5 49.7	5 16.0	4 46.3	....	....	3 10.0	....	....	....	....
10	E.	S.	17	....	59 17.6	59 49.6	0 21.8	0 51.7	1 24.5	1 56.0	2 31.6	....	3 3.4	....	3 38.7
		N.	18	....	10 53.2	10 7.0	9 20.6	8 41.4	7 57.2	7 16.5	6 37.2	....	6 1.2	....	5 21.7
	W.	N.	18	....	54 42.8	55 30.2	56 13.7	56 54.6	57 38.0	58 19.0	58 57.8	....	59 35.6	....	0 11.7
		S.	19	....	6 17.9	5 46.7	5 14.5	4 45.2	4 9.8	3 37.7	3 4.9	....	2 32.6	....	1 58.9
12	E.	N.	17	....	59 13.9	59 43.4	0 15.4	0 45.1	1 17.3	1 50.5	2 23.4	....	2 55.1	....	3 31.9
		S.	18	....	10 57.5	10 11.1	9 25.8	8 43.7	8 4.5	7 22.3	6 43.0	....	6 6.6	....	5 26.4
	W.	S.	18	....	54 34.3	55 20.7	56 4.9	56 49.4	57 28.5	58 9.3	58 49.6	....	59 26.6	....	0 6.1
		N.	19	....	6 17.2	5 47.5	5 17.0	4 47.0	4 14.5	3 42.5	3 9.0	....	2 36.2	....	2 0.3
13	E.	N.	17 58 12.5	58 42.2	59 13.6	59 43.4	0 14.5	0 46.5	1 17.3	1 50.0	2 23.6	....	....	....	....
		S.	18 12 30.6	11 38.9	10 53.0	10 8.4	9 24.1	8 41.9	8 1.5	7 20.3	6 39.2	....	....	....	....
	W.	S.	18 52 56.2	53 48.0	54 36.4	55 20.5	56 6.0	56 47.4	57 27.9	58 10.0	58 50.1	....	....	....	....
		N.	19 7 16.9	6 46.5	6 16.3	5 46.1	5 12.9	4 44.1	4 12.5	3 39.3	3 5.8	....	....	....	....
14	E.	S.	17 58 13.1	58 44.4	59 15.4	59 47.1	0 21.0	0 49.3	1 23.3	1 56.0	2 29.4	....	3 2.6	....	....
		N.	18 12 31.9	11 40.4	10 52.1	10 7.5	9 20.6	8 40.6	7 57 4	7 15.3	6 35.9	....	5 58.3	....	....
	W.	N.	18 52 54.9	53 44.8	54 34.6	55 20.7	56 7.3	56 46.8	57 29.7	58 11.8	58 51.0	....	59 28.4	....	....
		S.	19 7 14.5	6 43.6	6 12.4	5 42.1	5 6.0	4 39.7	4 4.4	3 32.6	2 56.6	....	2 25.7	....	....
18	E.	N.	17 58 9.6	58 41.0	59 11.2	59 40.3	0 13.0	0 44.2	1 15.2	1 48.4	2 22.2	....	2 54.3	....	....
		S.	18 12 31.4	11 42.0	10 52.5	10 10.2	9 25.3	8 42.3	8 2.9	7 20.2	6 41.5	....	6 2.7	....	....
	W.	S.	18 52 45.8	53 38.8	54 25.5	55 9.1	55 53.6	56 38.4	57 19.3	58 0.6	58 40.8	....	59 18.4	....	....
		N.	19 7 10.4	6 39.8	6 7.8	5 39.1	5 7.8	4 36.0	4 5.5	3 32.6	2 57.3	....	2 27.2	....	....
20	E.	N.	17	58 38.9	59 9.4	59 40.4	0 12.0	0 42.3	1 14.3	1 45.6	2 17.4	....	2 50.4	....	....
		S.	18	11 41.2	10 48.9	10 6.3	9 21.5	8 38.1	7 57.3	7 17.4	6 39.4	....	6 1.3	....	....
	W.	S.	18	53 33.2	54 26.4	55 6.4	55 57.8	56 37.1	57 14.3	57 55.3	58 34.8	....	59 16.3	....	....
		N.	19	6 37.4	6 6.6	5 36.4	5 5.3	4 34.4	4 3.1	3 29.4	3 0.6	....	2 22.3	....	....
21	E.	S.	17	58 42.4	59 12.2	59 42.8	0 15.0	0 45.0	1 19.2	1 51.9	2 25.8	....	2 56.9	....	....
		N.	18	11 39.3	10 49.3	10 1.4	9 16.0	8 34.2	7 50.9	7 11.1	6 32.8	....	5 58.0	....	....
	W.	N.	18	53 34.6	54 24.2	55 10.9	55 54.7	56 36.9	57 21.7	58 3.3	58 41.4	....	59 18.8	....	....
		S.	19	6 34.5	6 3.5	5 31.9	4 59.4	4 30.4	3 56.4	3 24.4	2 49.9	....	2 15.3	....	....
22	E.	S.	17	....	59 11.8	59 43.0	0 17.0	0 46.1	1 20.5	1 52.0	2 25.9	....	2 59.0	....	3 33.8
		N.	18	....	10 51.0	10 3.4	9 17.1	8 38.3	7 54.2	7 12.9	6 32.9	....	5 57.1	....	5 18.3
	W.	N.	18	....	54 22.6	55 8.4	55 56.0	56 36.3	57 19.3	58 0.3	58 40.5	....	59 20.9	....	59 54.6
		S.	19	....	6 1.8	5 29.4	4 57.5	4 26.7	3 55.0	3 23.0	2 47.8	....	2 14.5	....	1 41.2

OBJECT.	LEVEL READINGS. N.	LEVEL READINGS. S.	INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	d	d	d	"	° ′ "	"	° ′ "		
31 Leonis Min..	134.2	110.9	−1.906	−2.196	+37 17 58.62	+23.90	+37 18 22.52	T.	Good image.
	128.4	121.2							
	144.2	136.8	−2.438						Little woolly.
	157.4	125.8							
π Herculis.....	172.2	144.5	−2.338	−2.419	36 56 20.16	+ 9.41	36 56 29.57	B.	Blazing; air slightly foggy; transits over threads B to IX.
	166.2	156.5							
	184.0	176.6	−2.563						Bad seeing; diffuse; unsteady.
	197.6	164.0							
e Herculis.....	168.0	157.0	−2.544	−2.580	37 24 43.35	+ 9.21	37 24 52.56	B.	Poor seeing; diffuse.
	178.9	149.2							
	197.2	162.2	−2.663						Poor seeing.
	184.0	176.4							
α Lyræ........	175.1	168.8	+0.256	+0.191	38 40 42.74	−11.35	38 40 31.39	B.	1¼-inch aperture; good seeing.
	166.8	177.2							
	167.6	176.8	+0.125						1¼-inch aperture; fair seeing.
	176.0	168.8							
α Lyræ........	144.2	152.4	+0.994	+1.134	38 40 43.88	−12.05	38 40 31.83	B.	1¼-inch aperture; fair seeing; light clouds.
	146.2	153.9							
	148.2	157.4	+1.244						1¼-inch aperture; good seeing.
	148.2	158.9							
40 Cygni	149.2	158.8	+0.975	+1.012	38 3 42.12	−18.90	38 3 23.22	B.	Good seeing.
	151.1	157.1							
	155.4	161.1	+1.038						Fair seeing.
	153.2	164.1							
α Lyræ........	152.0	164.6	+1.975	+1.807	38 40 47.36	−16.02	38 40 31.34	T.	Fair seeing.
	152.0	171.0							
	156.6	172.0	+1.613						
	160.8	171.2							
α Lyræ........	199.8	218.2	+1.213	+1.314	38 40 48.91	−17.27	38 40 31.64	B.	1¼-inch aperture; tolerable seeing; hazy; bright moon.
	211.8	212.8							
	213.6	214.9	+1.469						1¼-inch aperture; tolerable seeing; unsteady at times; moon.
	204.2	226.4							
α Lyræ........	205.6	215.6	+1.388	+1.662	38 40 50.06	−18.06	38 40 32.00	T.	1¼-inch aperture; good image.
	205.4	215.6							
	204.8	216.0	+1.500						Fair seeing.
	204.0	216.8							
α Lyræ........	195.5	215.2	+1.750	+1.617	38 40 50.32	−18.58	38 40 31.74	T.	1¼-inch aperture; good seeing.
	201.7	210.0							
	200.8	210.4	+1.538						Unsteady.
	198.4	213.4							
α Lyræ........	186.6	205.0	+2.275	+2.057	38 40 50.85	−18.86	38 40 31.99	B.	1¼-inch aperture; pretty good seeing; faint at times; light clouds.
	190.9	208.9							
	199.8	216.4	+1.900						1¼-inch aperture; good seeing.
	202.3	216.1							
α Lyræ........	220.7	222.8	−0.106	−0.082	38 40 50.71	−19.16	38 40 31.55	B.	1¼-inch aperture; unsteady.
	225.2	221.4							
	230.1	224.4	−0.063						1¼-inch aperture; unsteady.
	226.0	230.7							
α Lyræ........	213.4	215.9	+0.494	+0.364	38 40 52.48	−20.42	38 40 32.06	B.	3-inch aperture; fair seeing.
	212.2	217.6							
	213.6	218.0	+0.250						3-inch aperture; tolerable seeing; blazing at times; light clouds.
	216.4	216.0							
α Lyræ........	227.2	236.0	+1.406	+0.921	38 40 52.95	−21.00	38 40 31.95	B.	3-inch aperture; poor image; blazing.
	224.8	238.5							
	227.6	236.8	+0.494						3-inch aperture; bad seeing; blazing.
	233.0	231.7							
α Lyræ........	218.6	221.2	−0.013	+0.045	38 40 53.20	−21.25	38 40 31.95	B.	3-inch aperture; tolerable seeing; clouds; haze.
	221.8	219.0							
	224.6	221.0	+0.106						3-inch aperture; tolerable seeing.
	220.5	225.8							
α Lyræ........	219.4	209.7	−1.306	−1.070	+38 40 53.16	−21.49	+38 40 31.67	T.	1¼-inch aperture; good seeing.
	220.4	209.2							
	219.0	208.4	−0.881						Good seeing.
	215.1	211.6							

DATE.	VERTICAL.	TELESCOPE.	TIME OF TRANSIT OVER THREADS.												
			I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
1884			h m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
July 30	E.	N.	17	58 32.0	59 3.5	59 34.0	0 4.3	....	1 6.8	1 38.4	2 10.6	....	2 45.4	....	....
		S.	18	11 31.8	10 44.7	9 59.5	9 14.4	....	7 52.9	7 10.1	6 33.4	....	5 54.3	....	....
	W.	S.	18	53 23.6	54 10.7	54 56.8	55 41.3	....	57 4.5	57 46.9	58 23.4	....	59 4.5	....	....
		N.	19	6 24.8	5 54.4	5 25.0	4 52.1	....	3 49.6	3 18.0	2 45.9	....	2 12.0	....	....

OBJECT.	LEVEL READINGS.		INCLINATION.	LEVEL COR.	APPARENT DECLINATION.	RED. TO 1883.0	MEAN DECLINATION 1883.0	OBSERVER.	REMARKS.
	N.	S.							
	d	d	d	"	° ′ "	"	° ′ "		
α Lyræ........	205.2	212.0	+1.006	+0.742	+38 40 55.26	−23.50	+38 40 31.76	B.	3-inch aperture; fair seeing; little diffuse.
	204.4	213.7							
	205.6	213.2	+0.506						3-inch aperture; tolerable seeing; faint at times; light clouds.
	209.1	209.6							

RESULTS

OF

OBSERVATIONS.

E 123

MEAN DECLINATIONS

OF THE

STARS OBSERVED WITH THE PRIME VERTICAL TRANSIT INSTRUMENT.

REDUCED TO 1883.0

32 Andromedæ

$\alpha=0^h\ 34^m\ 47^s$

			°	′	″
1883					
July	25	I.	+38	48	57.77
	30	I.			57.53
Aug.	2	I.			58.33
	6	I.			58.86
	7	I.			57.71
	12	I.			58.16
Nov.	3	T.			57.97
	5	B.			58.24
	14	B.			57.78
	16	B.			57.31
	17	T.			58.19
	27	T.			58.77
	28	B.			58.22
	30	B.			58.69
Dec.	3	B.			58.50
	6	T.			58.49
	11	T.			58.14
	12	B.			58.42
	17	B.			57.79
	21	B.			58.25
	29	T.			58.22
1884					
Jan.	3	T.			58.56
	4	B.			58.67
	6	T.			58.21
Mean			+38	48	58.20

μ Andromedæ

$\alpha=0^h\ 50^m\ 16^s$

			°	′	″
1882					
Dec.	7	I.	+37	51	50.66
	11	I.			51.82
	14	I.			50.96
	16	I.			51.84
	28	B.			51.36
1883					
July	16	I.			51.07
	30	I.			51.44
	31	I.			51.42
Aug.	2	I.			51.82
	6	I.			52.11
	7	I.			52.18
	12	I.			52.15
Oct.	31	B.			51.94
Nov.	3	T.			51.43
	5	B.			52.31
	12	B.			52.06
	14	B.			51.32
	15	T.			51.82
	16	B.			51.54
	19	B.			52.01
	27	T.			52.00
	28	B.			52.41
	30	B.			52.79
Dec.	3	B.			52.04
	5	B.			51.04
1883					
Dec.	6	T.	+37	51	52.13
	10	B.			51.92
	11	T.			51.84
	21	B.			51.93
	28	B.			52.15
	29	T.			52.13
1884					
Jan.	3	T.			52.11
	6	T.			52.14
	22	B.			52.63
	26	T.			52.27
Mean			+37	51	51.85

59 Andromedæ

$\alpha=2^h\ 3^m\ 47^s$

			°	′	″
1882					
Dec.	16	I.	+38	29	12.25
	18	B.			11.07
	19	I.			10.89
	26	I.			11.83
	28	B.			[10.33]
1883					
Aug.	12	I.			11.49
Sept.	3	T.			11.41
Nov.	19	B.			11.47
	27	T.			11.90
	28	B.			11.41
	30	B.			12.37
Dec.	3	B.			11.98
	5	B.			11.41
	6	T.			11.52
	10	B.			11.33
	11	T.			11.73
	12	B.			11.56
	21	B.			11.53
	27	T.			12.31
	28	B.			11.72
	29	T.			11.97
1884					
Jan.	2	B.			11.41
	4	B.			11.90
	6	T.			12.18
	9	B.			10.85
	17	T.			11.52
	21	B.			11.30
	22	T.			11.80
Mean			+38	29	11.63

B. A. C. 662

$\alpha=2^h\ 3^m\ 48^s$

			°	′	″
1882					
Dec.	18	B.	+38	29	25.15
	19	I.			24.80
	26	I.			25.65
	28	B.			24.99
1883					
Aug.	12	I.			25.27
1883					
Nov.	19	B.	+38	29	25.34
	27	T.			25.77
	28	B.			25.41
	30	B.			26.44
Dec.	3	B.			26.10
	5	B.			25.09
	6	T.			25.07
	10	B.			25.31
	11	T.			25.43
	21	B.			25.31
	27	T.			25.76
	28	B.			25.34
	29	T.			25.15
1884					
Jan.	2	B.			25.90
	6	T.			25.80
	9	B.			24.91
	17	T.			25.20
	21	B.			25.22
	22	T.			25.45
Mean			+38	29	25.41

ρ Persei

$\alpha=2^h\ 57^m\ 41^s$

			°	′	″
1882					
Dec.	11	I.	+38	23	9.45
	13	B.			9.01
	15	B.			9.74
	16	I.			9.73
	18	B.			10.10
	19	I.			8.69
	26	I.			9.46
	28	B.			9.03
1883					
Jan.	2	B.			8.99
	12	I.			9.83
	22	I.			9.32
	24	I.			9.26
Feb.	21	I.			9.27
July	30	I.			9.52
Aug.	1	I.			9.23
	7	I.			9.01
	12	I.			9.03
Sept.	3	T.			8.81
	5	T.			8.94
	9	B.			8.64
	25	B.			8.37
Dec.	6	T.			9.51
	10	B.			8.95
	11	T.			9.22
	12	B.			9.36
	21	B.			9.38
	27	T.			9.21
	28	B.			9.30
	29	T.			9.09
1884					
Jan.	2	B.			9.84
	4	B.			9.18
1884					
Jan.	6	T.	+38	23	9.34
	9	B.			9.33
	17	T.			9.62
	21	B.			8.91
	22	T.			9.30
	23	B.			8.66
	26	T.			9.39
Feb.	1	B.			9.61
	15	T.			8.93
	21	T.			9.25
Mean			+38	23	9.24

50 Persei

$\alpha=4^h\ 0^m\ 49^s$

			°	′	″
1882					
Dec.	26	I.	+37	43	56.05
1883					
Jan.	2	B.			56.66
	12	I.			56.14
	22	I.			56.17
	24	I.			56.03
	29	I.			55.67
Feb.	1	I.			56.13
Sept.	24	T.			56.37
	25	B.			55.92
	26	T.			55.52
	28	T.			56.24
Dec.	27	T.			56.03
	28	B.			56.64
	29	T.			55.99
1884					
Jan.	9	B.			55.74
	17	T.			55.76
	21	B.			55.77
	22	T.			56.02
	23	B.			55.60
	26	T.			55.88
Feb.	1	B.			55.11
	2	T.			55.85
Mean			+37	43	55.97

μ Aurigæ

$\alpha=5^h\ 5^m\ 25^s$

			°	′	″
1882					
Dec.	13	B.	+38	20	39.16
	26	I.			40.34
	28	B.			38.96
1883					
Jan.	2	B.			39.46
	12	I.			39.54
	22	I.			39.56
	24	I.			39.82
	29	I.			39.14
Feb.	1	I.			39.56
	12	B.			39.10
Sept.	24	T.			39.66
	25	B.			39.23

			°	′	″
1883					
Sept.	28	T.	+38	20	39.11
Oct.	3	T.			38.87
	9	B.			39.43
	10	T.			39.57
	15	T.			40.59
	16	B.			38.77
1884					
Jan.	17	T.			39.55
	21	B.			40.28
	22	T.			39.56
	23	B.			39.55
	26	T.			39.55
Feb.	1	B.			39.19
	2	T.			39.59
	15	T.			39.71
	20	B.			39.05
	21	T.			39.05
	28	T.			39.64
Mean			+38	20	39.47

θ Aurigæ
$\alpha = 5^h\ 51^m\ 45^s$

			°	′	″
1882					
Dec.	13	B.	+37	12	10.01
	28	B.			9.86
1883					
Jan.	22	I.			11.22
	24	I.			10.69
	29	I.			10.68
Feb.	1	I.			10.26
	9	I.			10.66
	12	B.			10.13
	27	I.			10.28
	28	B.			9.93
Mar.	24	I.			11.00
Sept.	7	T.			10.13
	24	T.			10.26
Oct.	3	T.			10.06
	10	T.			9.54
	15	T.			10.20
	16	B.			10.38
Mean			+37	12	10.31

40 Aurigæ
$\alpha = 5^h\ 58^m\ 31^s$

			°	′	″
1882					
Dec.	28	B.	+38	29	29.16
1883					
Jan.	22	I.			29.76
	24	I.			29.64
	29	I.			29.16
Feb.	1	I.			29.56
	8	B.			30.38
	9	I.			29.47
	12	B.			29.38
	19	I.			29.29
	21	B.			29.30
	28	B.			[28.50]
Mar.	1	I.			29.53
	2	B.			29.34
	3	I.			29.34
	7	B.			29.43
Oct.	8	T.			29.96
	9	B.			30.01
	10	T.			29.85
	16	B.			29.84
	30	B.			30.11
	31	T.			29.56
Nov.	1	B.			29.92
	4	B.			29.91
	5	T.			29.54
1884					
Feb.	1	B.			29.86
	2	T.			29.69
	15	T.			29.80
	18	B.			29.66
	20	B.			29.13
	21	T.			29.51
	28	T.			29.65
1884					
Mar.	4	T.	+38	29	29.85
	6	T.			29.53
	15	T.			30.09
Mean			+38	29	29.64

60 Aurigæ
$\alpha = 6^h\ 45^m\ 12^s$

			°	′	″
1883					
Feb.	21	B.	+38	34	56.34
	23	B.			56.38
Mar.	1	I.			56.53
	2	B.			56.10
	3	I.			56.57
	7	B.			56.83
	8	I.			56.42
	13	I.			56.51
Oct.	29	T.			56.99
	30	B.			57.03
	31	T.			56.73
Nov.	4	B.			56.40
	5	T.			56.62
	6	B.			57.49
	12	T.			56.83
	14	T.			57.33
	16	T.			57.19
	18	B.			56.44
	27	B.			56.78
	28	T.			57.41
	30	T.			57.32
1884					
Feb.	18	B.			56.70
	20	B.			56.05
	21	T.			56.98
	28	T.			56.41
Mar.	4	T.			56.56
	15	T.			56.73
	22	T.			56.84
Mean			+38	34	56.73

65 Aurigæ
$\alpha = 7^h\ 14^m\ 14^s$

			°	′	″
1883					
Feb.	9	I.	+36	58	45.40
	19	I.			44.63
	21	B.			44.39
	28	B.			45.00
Mar.	1	I.			44.49
	3	I.			44.46
	7	B.			44.85
	8	I.			[43.81]
	13	I.			44.57
Oct.	29	T.			44.84
	30	B.			44.99
	31	T.			44.96
Nov.	1	B.			44.99
	4	B.			44.74
	6	B.			45.06
	12	T.			45.02
	13	B.			44.85
	15	B.			44.64
	16	T.			44.68
	19	T.			45.45
	27	B.			45.19
	28	T.			45.49
	30	T.			45.49
1884					
Mar.	10	B.			44.86
	15	T.			44.97
Mean			+36	58	44.92

Groombridge 1450
$\alpha = 8^h\ 25^m\ 19^s$

			°	′	″
1883					
Feb.	19	I.	+38	24	58.86
	23	B.			59.87
	26	B.			58.98
	28	B.			59.62
Mar.	1	I.			59.23
1883					
Mar.	3	I.	+38	24	59.40
	7	B.			59.04
	8	I.			59.26
	13	I.			59.37
	14	B.			58.85
	20	I.			59.19
	21	B.			59.02
	24	I.			58.56
Apr.	3	I.			59.18
Oct.	31	T.			59.37
Nov.	1	B.			59.59
	4	B.			59.98
	5	T.			59.37
	12	T.			59.75
	14	T.			60.00
	16	T.			59.15
	18	B.			59.79
	19	T.			59.44
	27	B.			58.78
	28	T.			59.92
	29	B.			59.52
	30	T.			60.15
1884					
Mar.	24	B.			58.80
	31	B.			59.08
Apr.	5	T.			59.10
	7	B.			58.93
Mean			+38	24	59.33

38 Lyncis
$\alpha = 9^h\ 11^m\ 34^s$

			°	′	″
1883					
Feb.	23	B.	+37	17	48.79
	26	B.			48.07
	28	B.			47.95
Mar.	1	I.			47.74
	3	I.			48.28
	13	I.			48.93
	22	I.			47.80
Apr.	7	I.			48.79
Oct.	29	T.			48.73
Nov.	12	T.			48.11
	14	T.			47.80
	16	T.			47.53
	18	B.			48.62
	19	T.			48.82
	27	B.			48.10
	28	T.			48.15
	29	B.			48.00
	30	T.			48.67
Dec.	3	T.			48.56
Mean			+37	17	48.29

Lalande 18362
$\alpha = 9^h\ 13^m\ 40^s$

			°	′	″
1883					
Mar.	20	I.	+38	40	58.44
	21	B.			58.14
	22	I.			58.24
	24	I.			57.51
Apr.	3	I.			57.67
	4	B.			58.13
	7	I.			57.76
	10	I.			57.88
	13	B.			56.99
	14	I.			57.52
	17	I.			57.23
	18	B.			57.69
Dec.	3	T.			58.24
	9	B.			57.20
	10	T.			58.45
	27	B.			57.80
	28	T.			58.41
1884					
Jan.	2	T.			58.31
	9	T.			58.34
	13	B.			57.92
	17	B.			58.26
	21	T.			58.17
1884					
Apr.	7	B.	+38	40	57.49
	18	B.			57.85
Mean			+38	40	57.90

10 Leonis Minoris
$\alpha = 9^h\ 27^m\ 3^s$

			°	′	″
1883					
Mar.	14	B.	+36	54	57.90
	21	B.			58.45
	24	I.			57.58
Apr.	14	I.			58.46
	17	I.			58.34
Dec.	9	B.			58.15
	10	T.			58.82
	28	T.			58.33
1884					
Jan.	9	T.			58.69
	13	B.			58.32
	17	B.			58.28
	21	T.			58.53
Apr.	7	B.			58.86
Mean			+36	54	58.36

31 Leonis Minoris
$\alpha = 10^h\ 21^m\ 7^s$

			°	′	″
1883					
Apr.	10	I.	+37	18	21.86
	17	I.			22.29
	18	B.			22.24
	20	B.			22.23
	21	I.			22.11
	24	I.			22.11
	25	B.			22.14
	30	B.			22.21
May	2	B.			22.70
	3	I.			23.02
	4	B.			21.93
Dec.	9	B.			21.72
	27	B.			22.37
	28	T.			22.90
1884					
Jan.	2	T.			22.93
	9	T.			22.59
	13	B.			22.38
	17	B.			22.84
	20	B.			22.19
Apr.	17	T.			22.11
	18	B.			22.21
	29	T.			22.52
Mean			+37	18	22.35

38 Leonis Minoris
$\alpha = 10^h\ 32^m\ 27^s$

			°	′	″
1883					
Mar.	21	B.	+38	31	9.94
	22	I.			9.84
	24	I.			9.65
Apr.	10	I.			9.77
	11	B.			10.99
	14	I.			9.51
	17	I.			10.03
	18	B.			9.75
	20	B.			9.50
	21	I.			9.50
	24	I.			10.04
	25	B.			10.22
	30	B.			9.89
May	2	B.			9.59
	3	I.			9.80
	4	B.			9.00
Nov.	27	B.			10.48
	28	T.			10.44
	30	T.			10.20
Dec.	3	T.			10.54
	9	B.			9.77
	10	T.			10.29
	27	B.			9.81
	28	T.			10.57

1884			°	′	″
Jan.	2	T.	+38	31	10.55
	9	T.			10.02
	13	B.			10.08
	17	B.			9.96
	20	B.			10.05
	31	T.			9.91
Apr.	17	T.			9.70
	18	B.			9.74
	28	B.			9.54
Mean			+38	31	9.96

B. A. C. 4311

$\alpha=12^h\ 44^m\ 37^s$

1883			°	′	″
May	2	B.	+38	9	13.08
	17	I			12.97
	19	I.			13.88
	24	I.			13.06
	25	B.			13.15
1884					
Jan.	2	T.			13.97
	21	T.			13.59
Feb.	15	T.			13.51
	20	T.			13.57
	26	B.			13.17
	28	B.			13.19
Mean			+38	9	13.38

B. A. C. 4407

$\alpha=13^h\ 4^m\ 15^s$

1883			°	′	″
May	2	B.	+38	2	48.02
	16	B.			48.27
	17	I.			48.02
	19	I.			48.33
	24	I.			48.54
	25	B.			48.94
1884					
Jan.	2	T.			48.60
	13	B.			48.81
	20	B.			48.61
	21	T.			48.94
Feb.	15	T.			49.15
	20	T.			49.13
	26	B.			48.69
Mean			+38	2	48.62

17 H Canum Venaticorum

$\alpha=13^h\ 29^m\ 34.$

1883			°	′	″
May	2	B.	+37	46	55.14
	16	B.			54.91
	17	I.			55.12
	19	I.			55.58
	24	I.			55.37
	25	B.			55.57
	31	I.			55.54
June	1	B.			55.88
	4	B.			[54.14]
	11	B.			55.22
1884					
Jan.	13	B.			55.59
	21	T.			56.09
Feb.	15	T.			56.47
	26	B.			55.61
Mean			+37	46	55.55

γ Bootis

$\alpha=14^h\ 27^m\ 22^s$

1883			°	′	″
May	17	I.	+38	49	13.58
	19	I.			13.66
	24	I.			14.07
	31	I.			13.98
June	22	B.			13.94
	23	B.			13.44
July	14	I.			13.85
July	21	I.	+38	49	14.15
	25	B.			14.45
	31	I.			14.35
Aug.	6	I.			14.65
Dec.	27	B.			14.08
1884					
Jan.	13	B.			14.25
	20	B.			14.33
Feb.	15	T.			14.55
	26	B.			14.44
	28	B.			13.94
Mar.	21	T.			14.64
	24	T.			13.94
	30	B.			13.67
Apr.	6	B.			14.23
Mean			+38	49	14.10

25 Herculis

$\alpha=16^h\ 21^m\ 14^s$

1883			°	′	″
June	27	B.	+37	39	39.19
July	1	I.			40.30
	2	B.			40.11
	3	I.			38.99
	4	B.			40.37
	10	I.			39.90
	14	T.			40.02
	17	I.			40.28
	18	B.			40.05
	21	I.			40.27
1884					
Mar.	27	B.			39.56
	30	B.			39.46
Apr.	4	T.			39.97
	6	B.			39.53
	11	T.			39.76
	18	T.			39.63
Mean			+37	39	39.84

π Herculis

$\alpha=17^h\ 10^m\ 58^s$

1883			°	′	″
Apr.	8	B.	+36	56	[28.34]
June	27	B.			29.68
July	1	I.			29.18
	2	B.			29.86
	3	I.			29.33
	4	B.			30.26
	10	I.			29.78
	14	I.			29.87
	16	B.			29.92
	17	I.			29.75
	25	B.			30.03
	26	I.			29.98
	30	B.			29.86
	31	T.			30.03
Aug.	6	T.			29.98
	7	T.			29.82
	22	T.			30.37
Sept.	1	T.			30.01
	3	B.			29.95
	4	T.			30.42
	5	B.			29.94
	6	T.			30.66
1884					
Mar.	30	B.			29.54
Apr.	6	B.			29.72
	11	T.			29.89
	17	B.			30.25
	18	T.			29.84
	29	B.			29.57
Mean			+36	56	29.91

e Herculis

$\alpha=17^h\ 13^m\ 38^s$

1883			°	′	″
June	27	B.	+37	24	52.53
July	1	I.			53.09
July	3	I.	+37	24	52.39
	4	B.			52.72
	10	I.			53.40
	13	B.			52.56
	14	I.			52.83
	16	B.			52.83
	17	I.			53.27
	18	B.			52.69
	21	T.			53.33
	25	B.			52.30
	26	I.			53.15
Aug.	1	T.			53.28
	7	T.			53.35
	22	T.			53.05
1884					
Mar.	24	T.			52.82
	30	B.			52.31
Apr.	4	T.			52.84
	6	B.			51.85
	11	T.			52.86
	17	B.			52.72
	18	T.			52.91
	29	B.			52.56
Mean			+37	24	52.82

θ Herculis

$\alpha=17^h\ 52^m\ 14^s$

1883			°	′	″
Apr.	17	B.	+37	15	58.45
	18	I.			58.82
	20	I.			59.38
	24	B.			59.64
	26	B.			59.34
	27	I.			59.88
	30	I.			59.28
May	3	B.			59.70
June	27	B.			59.10
July	25	T.			59.57
	31	T.			60.40
Aug.	1	T.			60.24
	6	T.			59.58
	7	T.			59.96
	21	T.			60.59
	22	T.			59.88
Sept.	5	B.			60.28
1884					
Mar.	27	B.			59.05
	30	B.			58.75
Apr.	18	T.			60.21
Mean			+37	15	59.60

α Lyræ

$\alpha=18^h\ 32^m\ 59^s$

1882			°	′	″
Dec.	2	B.	+38	40	31.15
	8	B.			30.89
	12	B.			31.88
	16	I.			31.44
	19	I.			31.15
	28	B.			31.87
	29	I.			31.22
1883					
Jan.	1	B.			31.76
	11	I.			31.54
	14	I.			31.57
	21	I.			31.73
	23	I.			31.92
	31	I.			31.60
Feb.	1	I.			30.75
	26	I.			31.32
Mar.	7	I.			31.37
	27	B.			31.26
Apr.	3	B.			31.11
	8	B.			31.94
	17	B.			31.45
	18	I.			31.60
	20	I.			31.00
	24	B.			31.56
	26	B.			31.79
1883					
Apr.	27	I.	+38	40	32.05
	30	I.			31.47
May	2	I.			31.51
	3	B.			31.03
	9	I.			31.67
	17	B.			31.28
June	29	B.			31.53
July	2	B.			31.45
	3	I.			31.25
	4	B.			32.04
	10	I.			31.65
	13	B.			31.18
	16	B.			31.38
	17	I.			31.67
	18	B.			31.37
	21	I.			31.89
	23	B.			31.57
	25	B.			31.14
	26	I.			32.22
Sept.	9	B.			31.77
	16	B.			31.81
	21	B.			31.56
	26	B.			31.38
	27	T.			31.87
	28	B.			31.34
Oct.	3	B.			31.86
	4	T.			31.60
	10	B.			32.37
	14	B.			32.01
	16	T.			31.68
	24	B.			32.13
	26	B.			31.65
	30	T.			32.07
	31	B.			32.14
Nov.	3	B.			31.97
	5	T.			31.78
	7	T.			32.46
	12	T.			31.40
	14	T.			32.20
	15	B.			32.25
	16	T.			32.57
	17	B.			32.23
	19	T.			32.26
	24	B.			31.54
	27	B.			32.46
	28	T.			32.46
	30	T.			31.88
Dec.	5	T.			31.94
	6	B.			32.25
	10	T.			32.24
	11	B.			32.18
	12	T.			32.02
	13	B.			32.02
	21	T.			32.50
	28	T.			32.40
	29	B.			31.91
1884					
Jan.	2	B.			31.75
	3	T.			31.79
	16	B.			31.52
	20	T.			32.36
	22	T.			31.86
	25	B.			32.02
	31	T.			32.17
Feb.	1	T.			31.90
	15	T.			31.70
	26	B.			31.58
	28	B.			31.79
Mar.	24	T.			31.82
	27	B.			31.95
	30	B.			32.28
Apr.	6	B.			31.98
	11	T.			31.74
	18	T.			31.49
	20	B.			31.11
June	18	B.			31.39
	20	B.			31.83
July	3	T.			31.34
	7	B.			31.64
	10	T.			32.00
	12	T.			31.74

1884			°	′	″
July	13	B.	+38	40	31.99
	14	B.			31.55
	18	B.			32.06
	20	B.			31.95
	21	B.			31.95
	22	T.			31.67
	30	B.			31.76
Mean			+38	40	31.75

B. A. C. 6365

$\alpha=18^h\ 36^m\ 14^s$

1883			°	′	″
Apr.	27	I.	+38	15	31.12
May	2	I.			31.47
	3	B.			31.96
	6	B.			32.34
	8	B.			31.90
	9	I.			31.38
	16	I.			31.57
	17	B.			31.80
	18	I.			31.48
	24	B.			32.21
Aug.	6	T.			31.45
	7	T.			30.91
	21	T.			32.00
	22	T.			31.81
Sept.	1	T.			31.42
	3	B.			32.51
	4	T.			32.34
	5	B.			31.38
	6	T.			31.98
	7	B.			31.46
	9	B.			31.41
Mean			+38	15	31.71

ζ′ Lyræ

$\alpha=18^h\ 40^m\ 45^s$

1883			°	′	″
May	2	I.	+37	28	60.15
	3	B.			59.63
	8	B.			59.79
	15	B.			60.31
	16	I.			60.45
	17	B.			59.52
	18	I.			59.25
	24	B.			59.95
July	31	T.			60.46
Aug.	1	T.			60.48
	7	T.			59.56
	21	T.			59.47
	22	T.			60.37
Sept.	1	T.			60.47
	3	B.			60.74
	5	B.			59.48
	6	T.			60.48
1884					
Apr.	27	B.			59.67
Mean			+37	29	0.01

θ Lyræ

$\alpha=19^h\ 12^m\ 18^s$

1883			°	′	″
May	2	I.	+37	55	33.63
	8	B.			32.69
	15	B.			33.06
	16	I.			33.30
	17	B.			33.07
	18	I.			32.84
	23	I.			33.10
	24	B.			33.17
July	31	T.			33.72
Aug.	1	T.			33.55
	6	T.			34.09
1883					
Aug.	7	T.	+37	55	33.00
	21	T.			32.89
	22	T.			33.45
Sept.	1	T.			33.66
	3	B.			33.30
	4	T.			33.89
	5	B.			[32.16]
	6	T.			33.60
	15	T.			33.03
Oct.	2	T.			34.06
	9	T.			34.24
Mean			+37	55	33.40

22 Cygni

$\alpha=19^h\ 51^m\ 41^s$

1883			°	′	″
May	16	I.	+38	10	34.18
	23	I.			34.35
June	1	I.			34.76
	4	I.			34.38
	5	B.			34.69
	8	I.			34.00
	11	B.			34.36
Sept.	1	T.			34.71
	3	B.			34.70
	4	T.			35.16
	5	B.			33.70
	6	T.			34.46
	7	B.			34.20
Oct.	9	T.			35.24
	11	T.			34.74
Mean			+38	10	34.51

40 Cygni

$\alpha=20^h\ 23^m\ 14^s$

1883			°	′	″
June	1	I.	+38	3	23.24
	4	I.			23.05
	8	I.			23.72
	11	B.			23.23
	14	B.			24.07
	21	B.			23.19
Sept.	27	T.			23.40
	28	B.			[21.99]
Oct.	2	T.			23.41
	8	B.			23.58
	9	T.			23.64
	10	B.			23.62
	11	T.			23.38
	15	T.			23.89
	16	T.			24.08
	24	B.			24.01
Nov.	5	B.			23.50
1884					
June	20	B.			23.22
Mean			+38	3	23.54

τ Cygni

$\alpha=21^h\ 10^m\ 7^s$

1883			°	′	″
May	16	I.	+37	32	46.76
	17	B.			46.56
	18	I.			46.37
June	4	I.			46.31
	14	B.			46.72
	29	I.			46.52
Sept.	20	B.			46.21
	26	B.			46.82
Oct.	2	T.			47.22
	8	B.			47.01
	9	T.			47.40
	10	B.			47.63
	16	T.			47.33
1883					
Oct.	24	B.	+37	32	47.58
	26	B.			47.15
	30	T.			48.07
Nov.	1	T.			47.34
	5	B.			47.66
	7	B.			48.23
	14	B.			48.40
	15	T.			47.40
	16	B.			48.32
	17	T.			48.05
	19	B.			48.43
Dec.	3	B.			48.41
	6	T.			47.70
	12	T.			47.66
Mean			+37	32	47.38

72 Cygni

$\alpha=21^h\ 30^m\ 0^s$

1883			°	′	″
July	2	I.	+38	0	35.69
	6	I.			34.78
Sept.	20	B.			35.73
	26	B.			35.11
Oct.	2	T.			35.59
	8	B.			35.55
	10	B.			36.21
	11	T.			35.89
	16	T.			35.87
	19	B.			36.61
	24	B.			36.33
	30	T.			36.07
Nov.	1	T.			36.06
	3	T.			35.87
	5	B.			36.11
	7	B.			35.28
	12	B.			35.87
	17	T.			35.81
Mean			+38	0	35.80

1 Lacertæ

$\alpha=22^h\ 10^m\ 52^s$

1883			°	′	″
June	29	I.	+37	9	58.33
July	2	I.			58.43
	6	I.			58.17
Sept.	26	B.			59.40
	27	T.			58.96
	28	B.			58.42
Oct.	2	T.			59.00
	8	B.			58.90
	9	T.			58.92
	10	B.			59.17
	15	B.			59.45
	16	T.			59.08
	19	B.			59.61
	24	B.			59.00
	26	B.			[60.28]
	30	T.			59.43
	31	B.			59.00
Nov.	1	T.			58.96
	3	T.			59.64
	5	B.			58.50
	12	B.			59.04
	14	B.			59.57
	15	T.			59.04
	17	T.			59.08
	19	B.			59.19
	27	T.			58.89
	30	B.			[60.43]
Dec.	3	B.			59.29
	6	T.			59.51
	11	T.			59.56
Mean			+37	9	59.06

10 Lacertæ

$\alpha=22^h\ 34^m\ 1^s$

1883			°	′	″
June	29	I.	+38	26	28.85
July	2	I.			29.27
	6	I.			29.61
	10	B.			29.20
	12	B.			29.63
	13	I.			28.66
	16	I.			29.73
	17	B.			29.63
	22	B.			29.50
	26	B.			29.59
Sept.	27	T.			29.60
	28	B.			29.32
Oct.	2	T.			29.40
	8	B.			29.44
	9	T.			29.59
	10	B.			29.98
	15	B.			29.65
	16	T.			29.59
	19	B.			29.66
	24	B.			29.81
	26	B.			29.80
	30	T.			29.18
	31	B.			29.37
Nov.	1	T.			30.06
	3	T.			29.61
	5	B.			29.42
	7	B.			29.24
	12	B.			28.90
	14	B.			29.31
	15	T.			30.23
	17	T.			29.22
	19	B.			29.85
	28	B.			29.77
	30	B.			30.12
Dec.	3	B.			29.61
	6	T.			29.55
	10	B.			29.92
	11	T.			29.90
Mean			+38	26	29.55

14 Andromedæ

$\alpha=23^h\ 25^m\ 32^s$

1883			°	′	″
July	13	I.	+38	35	36.52
	16	I.			36.94
	17	B.			36.35
	25	I.			36.05
	26	B.			36.35
	30	I.			37.42
	31	I.			37.64
Aug.	2	I.			37.43
Oct.	8	B.			37.30
	9	T.			37.31
	10	B.			36.93
	15	B.			37.38
	16	T.			36.98
	19	B.			37.38
	24	B.			37.77
	26	B.			37.38
	31	B.			35.90
Nov.	1	T.			37.71
	3	T.			36.97
	5	B.			36.74
	12	B.			37.32
	14	B.			36.68
	17	T.			37.08
	19	B.			37.18
	27	T.			37.57
	28	B.			37.00
	30	B.			38.20
Dec.	4	T.			37.04
	6	T.			37.05
	11	T.			37.01
	12	B.			37.32
Mean			+38	35	37.09

Google